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PC PowerPlay

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TORMENT TIDES OF NUMENERA

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KNOCK NVIDIA FROM
FIRST PLACE?

THIEF REVEALED

BEHIND THE REBOOT OF
THE STEALTH GAMING
LEGEND

OCULUS RIFT

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A dark, painterly illustration of a woman in a red hooded cloak standing in a doorway. She is surrounded by grotesque, mechanical, and organic faces. The style is reminiscent of a dark fantasy or horror theme.

TORMENT TIDES OF NUMENERA

p. 44

Planescape's successor asks: What does one life matter?



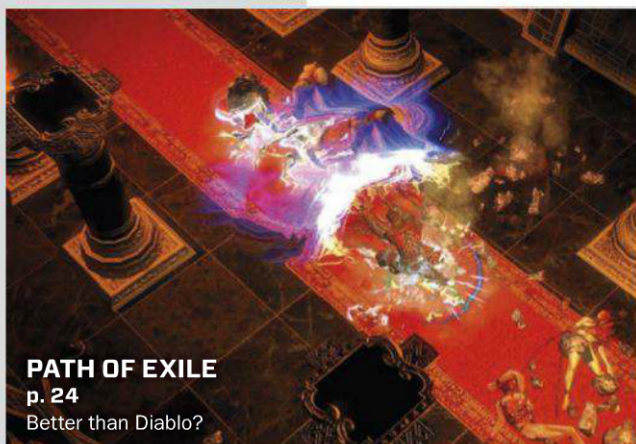
THIEF p. 18

Hold on to your wallets
– Garrett is back



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Civ gets bigger



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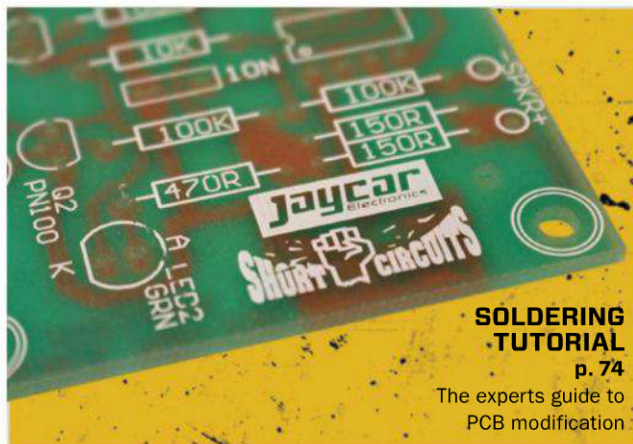
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ACCESSIBLE GAMING p. 100

How PC gamers
with disabilities can
influence design



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The Goggles Do Something

Issue #216 may seem like an unimportant number, but it's nevertheless something of a milestone for PCPP. This is the first issue in which a PC game funded through Kickstarter has graced the cover. With it, this issue represents the shifting tides of PC game development. Power is returning to the people – both PC gamers and developers themselves. We are not witnessing the death of the publisher, however; we're seeing a new tier of PC game find a way to exist.

Though crowdfunding may be a new model of development, we are seeing the first cycle of familiar names and genres. Everything old is new again. And there is no more important Kickstarter success story than that of Torment: Tides of Numenera. Having eclipsed the funding totals of the games that began this revolution – Double Fine Adventure and Wasteland 2 – its backers have made one thing very clear: a spiritual sequel to Planescape: Torment must see the light of day. We're right there with them; to this day, we still believe Planescape: Torment is the greatest RPG ever made. Join us in celebrating inXile's vision of a new kind of dark and mature storytelling in a brand new fantasy setting.

Being an isometric RPG, Torment: Tides of Numenera is one of the last games you'd want to play with the Oculus Rift. This new virtual reality headset arrives off the back of its own successful Kickstarter campaign, amidst a flurry of early developer kit appraisals that hail it as the beginning of the VR revolution No Seriously We Mean It This Time. The Tech Editor gave himself square eyes putting those claims to the test, and you can absorb the results on p.54 with your own actual eyes. It's about time something shook up PC gaming, injecting the kind of excitement and wonder that the mid-90s leap from 2D to 3D instilled.

Finally, I'd like to welcome the latest intern-slash-meatshield to the PCPP team. Zac Naoum is a young whippersnapper currently studying Digital Cultures, which means he knows far more about the Twitters and the Facebooks than I ever will. So stop by ours (@PCPowerPlay and http://facebook.com/pcpowerplay respectively) for a direct line to him and the rest of the team. Or perhaps you're even more hip, and want to read PCPP on your iPad? That is a thing we now provide (http://tinyurl.com/ipowerplay).

Now you damn kids with your VR goggles and your fancy tablets get off my lawn, me and my Russian conscripts have got some Panzers to sink.

Daniel Hindes
Editor
@dhindes



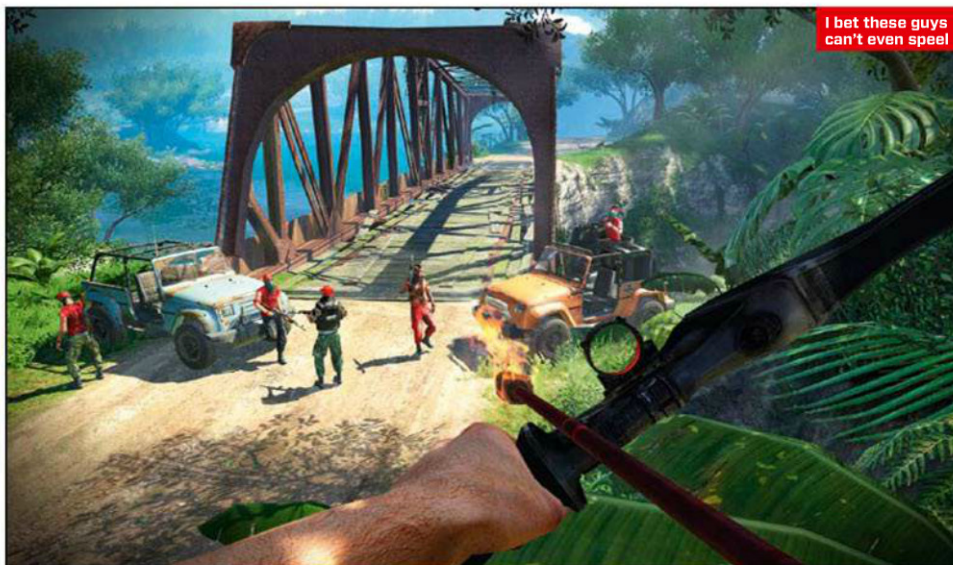
DHindes

QUOTES OF THE MONTH

"I'm going to have some dong"

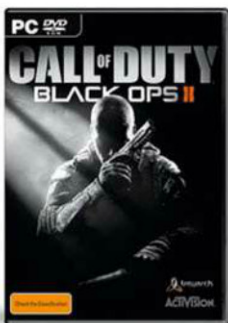
"Shit is an organ you didn't need"

"But it does make him an acceptable dick"



LETTER OF THE MONTH WINS!

Write in to PCPP with your rants, considered opinions, and endless run-on sentences of pure awesome. The address is letters@pcpowerplay.com.au. Each letter read by hand! This month's winner scores themselves a copy of Call of Duty: Black Ops II for PC! The future is now! BANG!



LETTER OF THE MONTH

Many people criticize Far Cry 3's writing, an inane mess that completely fell apart in the last third of the game, an unfortunate marring of brilliant open-world gameplay.

I, however, noticed the writing quality would be severely underwhelming within five minutes of the tutorial. How did I know this? Its. It's.

Go on, play Far Cry 3 again now that you're looking for it. Every single time a possessive its should be used? They use an apostrophe in it. It's wrong when its writing is so flawed on such a fundamental level.

This was a few months ago, though, so why bring it up now? Because the trend is spreading at an alarming rate. Whilst it is with undying love that I read your magazine, not once finding such a grievous error in its publication, let alone a consistently made one, one must simply turn to the last page of the May issue to see what I'm referring to. Yes, a Thermaltake ad, an ad I was perusing because of the quality of your generous sponsor. That was when I noticed the dreaded line. "Maybe your more..."

Your. You're.

When storytelling is more important now than ever before, why can't we seem to handle blatant errors at the professional tier?

As an addendum, I would like to

say that I have never been as self-conscious of my grammar as I am right this second.

Ross James

Thank you Ross for your commitment to bringing this to our attention. Its not every day an advertiser makes such a blatant mistake in there print material, but rest assured where following up with Thermaltake to make sure they're marketing department knows about this.

STARCRRAFT II AND PENSIONERS

Have you seen StarCraft II's "update" process? What a crock! Forced internet registration, and regular huge internet downloads. Currently I'm looking at an over five gigabytes "update" for a game that I'm quite happy to play offline. My prepaid mobile broadband gives me 3GB a month. Using one third of that for a computer game - not the whole game - for an "update" to the game - is ridiculous.

I'm 70 years old, a pensioner, an enthusiastic computer user since the original Tandy Color Computer (CoCo) when one had to type in the BASIC code for a game to play it(!), and am tired of continual patches to games which should have been working properly when they were released.

Blizzard, (I'd like to tell them, but they aren't listening!) don't bother with a StarCraft III. I won't be buying it. I also won't be bothering with

the Zerg and Protoss campaigns. I can't afford to continually pour money into a computer game which basically is an overhyped, over-CG'd, under-immersive version of a great 15 year old game. (We won't talk about the juvenile macho cut scenes, which compare not at all with the original StarCraft's hilarious scenes.)

Blizzard's advice was: "Offline Mode: You need to register the game with your battle.net account, then log onto the game while connected to the internet to validate your copy of SC2 on your pc. From this point on, when no internet connection is available a "login as guest" button should appear. This will be for 30 days only, at which point you will need to go back online and revalidate your guest pass for another 30 days."

Which I was quite happy to accept. The reality is obviously different. Why does "revalidation" involve such a huge download?

StarCraft II? Forget it. I've removed it from my computer - it's just not worth pouring more money into! - and I'll be spending my money in the future on better value software!

Derek Thomas

Sorry Derek - StarCraft II is a different beast, now. It's a multiplayer, eSports machine, and that's why these constant updates are necessary. We agree that such online functionality should be decoupled from the singleplayer campaign, and that Battle.net's front-end login is annoying. But it's obviously working for Blizzard. The only thing we can do? Vote with our wallets. So well done on leading the charge.

CVRYISIS

The first game I want to see on the Oculus Rift is Crysis. I want to live in that jungle and take down the aliens. The 2D felt very real; I can't wait to see where this device takes it.

Mitchell Hall

We agree, and we've already seen the original Crysis in action with the Rift - expect the drivers to be made available soon!

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PC PowerPlay COMPS

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Welcome to the PCPP competitions page! With the office positively overflowing in PC gaming goodies, it's become so difficult to do our ridiculously awesome jobs that we decided to pass the savings onto you. And by savings, we mean free stuff. Games, collectibles, swag, and all kinds of media that screams PC gaming. Or perhaps those are the screams of the intern trapped under the boxes of giveaways. Only one way to save them:

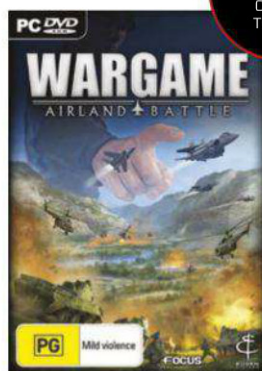
Head to www.pcpowerplay.com.au to enter!

To find the competitions, simply mouse over the "Community" tab in the main menu at the top of the homepage, and click on "Competitions". Click through to each individual competition page, fill out the form (be sure to agree to the terms and conditions) and you'll be in the running to win! Keep an eye out for this page in future issues of PCPP, as we roll out new competitions every month!

WIN

Wargame: AirLand Battle

One of the most under-rated strategy games on PC is getting a sequel! Thanks to QV Software, we've got copies to fly out to 10 lucky winners!



10
COPIES
TO WIN!

TO ENTER:

Head to www.pcpowerplay.com.au

In 25 words or less, answer the following question:

► **What is the worst airline you've ever flown with?**

WIN

Company of Heroes 2

Relic is taking the battle to the frozen Eastern Front of World War II! Thanks to Five Star Games, we're ready to conscript 10 PC gamers to fight for the Motherland when COH2 releases in June.



10
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TO WIN!

TO SIGN UP:

Head to www.pcpowerplay.com.au

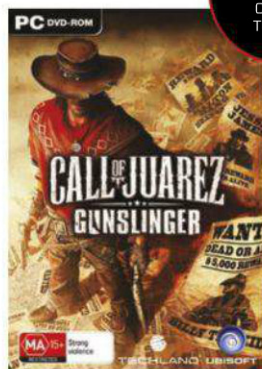
In 25 words or less, answer the following question:

► **What is the best way to keep warm in the snow?**

WIN

Call of Juarez: Gunslinger

The Call of Juarez series is returning to what it does best: Wild West shootouts! Thanks to Ubisoft, we've got 10 copies to give away, with the choice of a box or a download!



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TO WIN!

TO ENTER:

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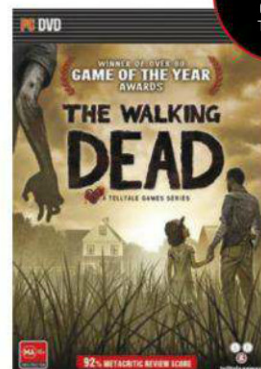
In 25 words or less, answer the following question:

► **What do you want outlawed, and why?**

WIN

The Walking Dead

We gave it a 10/10 and it made our GOTY list – so you want this game! Thanks to Five Star Games, we've got 10 copies of The Walking Dead: Season One to give away.



10
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TO WIN!

TO ENTER:

Head to www.pcpowerplay.com.au

In 25 words or less, answer the following question:

► **Tell us one of the lyrics from the song, "Oh my Darling, Clementine".**

HEAD TO
WWW.PCPOWERPLAY.COM.AU
TO ENTER!



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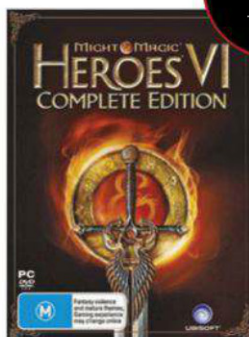
WIN

5

COPIES
TO WIN!

Heroes of Might and Magic VI Complete

With the recently-released expansion, Shades of Darkness, there's never a better time to get into HOMM VI! Thanks to Ubisoft, we've got 5 copies to give away.



TO ENTER:

Head to **www.pcpowerplay.com.au**
In 25 words or less, answer the following question:

► **What is your favourite shade of black?**

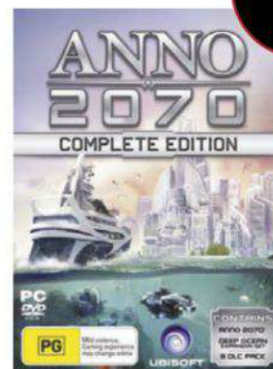
WIN

5

COPIES
TO WIN!

Anno 2070 Complete

Anno 2070's Deep Ocean expansion combines with the original futuristic city builder in this complete package! Thanks to Ubisoft, we've got 5 copies to give away!



TO ENTER:

Head to **www.pcpowerplay.com.au**
In 25 words or less, answer the following question:

► **Why is it better, down where it's wetter, under the sea?**

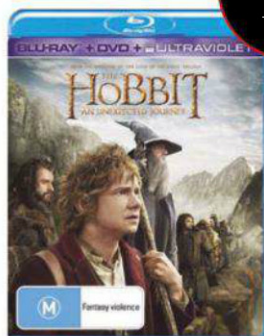
WIN

10

COPIES
TO WIN!

The Hobbit: An Unexpected Journey

Thanks to Warner Bros Home Entertainment, we've got 10 Blu-ray + Ultraviolet copies of The Hobbit: An Unexpected Journey to give away!



TO TAKE YOUR FIRST STEP:

Head to **www.pcpowerplay.com.au**
In 25 words or less, answer the following question:

► **What has it got in its pockets?**

WIN

1

HEADSET AND
BACKPACK TO
WIN!

Ear Force Z Seven

Thanks to QV Software, we've got our ears on one Turtle Beach Ear Force Z Seven series progression grade eSports headset and backpack to give away!



TO WIN THIS HEADSET, SIMPLY:

Head to **www.pcpowerplay.com.au**
In 25 words or less, answer the following question:

► **Which PC game would you want to be an eSports star of?**

THIS MONTH...



DANIEL HINDES
needed protection
from zee Germans
[@dhindes](#)



MALCOLM CAMPBELL
suffered eternal
torment



OLIVER BARLES
hid in his own dark
hallway



BENNETT RING
discovered his inner
virtual boy
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NATHAN COCKS
went all Aldous Huxley
on us
[@elprezau](#)



JAMES COTTEE
considered moving to
Kiama
[@j_cottee](#)



ANTHONY FORDHAM
spread his seeds
[@popsciau](#)



KATIE WILLIAMS
stole Garrett's
nailpolish and mascara
[@desensitisation](#)



TERRENCE JARRAD
just wanted to chat to
the sexy lifeguard
[@hailtonothing](#)



MATT WILSON
got his solder on
[@unco_tomato](#)



JAMES O'CONNOR
observed his
motivations for
breaking arbitrary laws
[@jickle](#)



MEGHANN O'NEILL
got metaphysical
about mortality
[@firkraags](#)



ZAC NAOUM
tried not to mention
Zelda... dammit
[@zacnaoum](#)



DANIEL WILKS
rediscovered his love
of punching
[@drwilkenstein](#)



CAMERON FERRIS
pointed giant fingers at
tiny aeroplanes
[@pcpowerplay](#)

FRONTEND



18 Thief

The return of stealth gaming's master



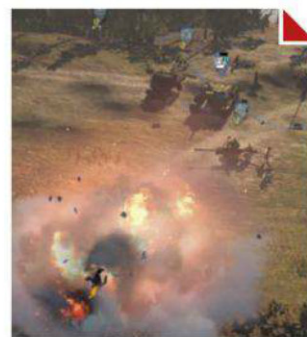
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Civilization V gets grander in this latest expansion pack



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The action-RPG redefined



28 Company of Heroes 2

Hands-on with multiplayer

THE RELEASE SCHEDULE

Looking ahead to the upcoming PC game releases

LEGEND:  Steam  Origin  Good Old Games  Download  Retail  uPlay

MAY



**RESIDENT EVIL
REVELATIONS**
CAPCOM, \$59.95



**THE NIGHT OF
THE RABBIT**
DAEDALIC, STBA



**GRID 2
CODEMASTERS,**
\$79.95



JUNE



MOTOGP 13
MILESTONE,
STBA



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LARRY RELOADED**
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**COMPANY OF
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LOST PLANET 3
SPARK UNLIMITED,
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ANNIHILATION**
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ADVENTURES**
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**DIVINITY:
DRAGON
COMMANDER**
LARIAN, \$39.99



**CIV V: BRAVE
NEW WORLD**
FIRAXIS, STBA



AUGUST



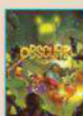
SAINTS ROW IV
VOLITION, STBA



**SPLINTER CELL
BLACKLIST**
UBISOFT
TORONTO, STBA



SEPTEMBER



**OBSCURE
MIGHTY ROCKET,**
STBA



OCTOBER



RAVEN'S CRY
OCTANE GAMES,
STBA



**BATMAN ARKHAM
ORIGINS**
WARNER BROS.,
STBA



Q2

**NEVERWINTER
CRYPTIC, FREE-TO-PLAY**



EAST VS WEST
BL-LOGIC, STBA



DIVINITY: ORIGINAL SIN
LARIAN, STBA



AMNESIA: A MACHINE FOR PIGS
THECHINESEROOM, STBA



THE DARK EYE: DEMONICON
NOUMENA, STBA



THE
PICTURE BIG

Total War: Rome II

DEVELOPER CREATIVE ASSEMBLY
PUBLISHER SEGA
DUE OCTOBER
www.totalwar.com

The Battle of the Teutoberg Forest will feature as one of Total War: Rome II's standalone scenarios. A conflict in which the Romans found themselves on the losing side, players must retreat as many troops from the battlefield after the inevitable barbarian ambush, proving there is honour in running away.



URW: UNREAL WORLD RPG

Finno-Ugric low fantasy by ugly Finnish who never finish - ugh! - ate my brain!



DEVELOPER VALTAVA HIRVI (ENORMOUS ELK!)

ORIGIN FINLAND (THE COUNTRY WHERE I'D QUITE LIKE TO BE)


www.unrealworld.fi

Do you like RPGs but think that awesome graphics get in the way of true detail? And I don't mean true detail, I mean TRUE detail. Detail so detailed it makes you realise that your body is made up of hundreds of different systems and processes all working together and if any of them are disrupted by, say, a troll hitting you in the lower-upper-middle forearm with a lesser carving axe of subdued-minor-inferior-better-somewhat-rusted iron, then you'll suffer a movement penalty to two decimal places? If the answer to that question is anything other than "dafuq I just read?" then Unreal World is for you.

Approaching its quarter-century of development, this game has come a long way. Not in any design or graphical sense, but in the sense that two presumably insane Finns have spent somewhere between a quarter and a third of their lives working on this and also taking pictures of themselves striking heroic fantasy poses in the woods outside of, I

dunno, Finlandton, and using them as character portraits because why would you hire an artist? Maybe they can't afford an artist, you say. To which I say to Sami and Erkka: guys, after 23 years you could have BRED an artist. Not with each other, you'd need a woman. Maybe that's the problem.

Anyway, this is a roguelike survival game which is code for "insanely bastard hard" with special extra Finland-sauce. Finnish is one of the hardest languages to learn as it's a mix of Inuit, Viking and the dying screams of the conquered. It has, like, 72 tenses or something. Which explains a lot about this game and its "infinite ways to play." Note: this is not an exaggeration.

On the other hand, perhaps I'm just too stupid to understand the appeal of building a shack out of twigs in the snowy wilderness and then getting attacked by ASCII wolves with 128 different hit zones. After all, according to Enormous Elk's random player quotes, Goatface, from Alaska, freaking loves it. 



WHY UNREAL WORLD FREAKS ME OUT

- Development started in 1990 and as far as I can tell it will never end. Ever. That's 23 years of progress and the game still... looks like this.
- I dunno, but I think maybe 13 different wound locations with dozens of different wound types is probably like, you know, a bit simplistic?
- Looks like SkiFree got a chronic case of feature-creep and its crazy Finnish doctor would only prescribe sugar pills. For 23 years.
- Isn't this just a mechanism for making us look at pictures of Sami Maaranen with his shirt off? I mean really?



CHOICE QUOTES

"You need axe for finishing the walls - preferably a broad axe. Ok. The carving axe you have will be used. Ok, you have all the necessary equipment! Using a carving axe works ok, but takes a bit longer. You start building..."

"You feel yourself bitterly cold. Your forearm feels cold. (Nutrition: Nourished. Health: Vigorous.)"

Obsidian Series® 350D

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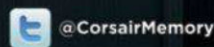
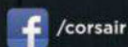


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THE RETURN OF THE MASTER THIEF

Garrett's finally back – and he's not taffing around



Details of a brand new Thief game have finally emerged from the mist. **KATIE WILLIAMS** infiltrated Eidos Montreal's cathedral to pinch a few precious details – and blackjack a few novices along the way.

Garrett's last outing was nearly a decade ago. Thief: Deadly Shadows, the third in the definitive first-person sneaker series, brought some of the most harrowing narrative and level design (The Cradle, anyone?) PC gamers had ever experienced – before unceremoniously vanishing in the smoke. We began to think we'd never fill Garrett's ironically clanky boots ever again. Even the 2009 announcement of a sequel didn't do much to stir our excitement, as the silly name "Thi4f" quickly faded into silence once more.

All that changed when Eidos Montreal subtly coaxed PCPP into for a look at the new Thief: an exhilarating 45 minutes of jewellery-pinching, skulking in the shadows, and general taffing about. We cornered producer Stephane Roy and demanded to know why Thief had been absent so long. What other surprises does Eidos have up its sleeve?

"We had to do our homework for this franchise," Roy explains. "[The beginning

of development] was really about what type of gameplay, what type of experience the player should have. It wasn't a question of which platform it was going to be on – it could even have been a board game. Most important was: what type of experience?"

This isn't a sequel or even a prequel. This is Thief reimagined for the modern age, updated for today's "refined" game conventions. The "4" has been dropped from the title to highlight this. Navigation markers and a new "Focus" system – which heightens Garrett's abilities to enable faster fleeing, more efficient fighting, and even better thievery – make their first appearance in the series. At the same time, it was still hugely important to Roy to keep the experience as thievery-focused as possible. You won't be wantonly executing guards left, right, and centre; your primary job is to steal, not to kill.

"There is a lot of passion behind this franchise," Roy says, tip-toeing around the innocently-placed gas mine that is Thief's

PORT OF CALL

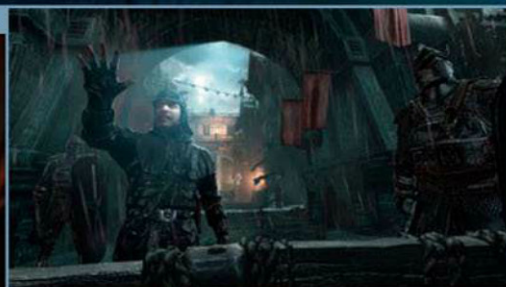
Eidos took the PC version of Deus Ex: Human Revolution very seriously, and they're doing it again with Thief. They're mindful of the fact that the original series was a cornerstone of the PC era, and though they can't discuss the differences between PC and console versions just yet, we've been assured PC gamers have something special in store.

THIEF
DEVELOPER EIDOS MONTREAL
PUBLISHER SQUARE ENIX
DUE 2014
www.thiefgame.com





Ooof, right in the burricks



You've licked your last flame, barrel



"Stephane Roy insists that there was no room for negotiation – the team is as devoted to the franchise as its fans"

GRAVEL WIT

Fret not; though Garrett has received a makeover in the voice-acting department, with series-long veteran Stephen Russel being replaced by newcomer Romano Orzari, the loveable rogue will remain just as cynical and loot-obsessed as ever. Eidos tells us that gaming's greatest anti-hero was an absolute must-have for the Thief reboot – and he's now been outfitted with new tools for better thievery, too.



hardcore following. "We had to be careful."

Incorporating what Eidos Montreal perceives to be "today's mechanics" while keeping the experience true to the series puts a lot of pressure on the developers, but Roy insists that there was no room for negotiation – the team is as devoted to the franchise as those fans.

Eidos is using the latest tech to apparently enhance detail, believability, and immersion in the smoke-filled world of The City. For instance, the presence of loading screens has been greatly minimised, so nothing will be pulling you out of the environment. The AI driving NPCs has been greatly augmented to allow for more believable patrol routes and cones of vision, which means

Garrett will need to be a lot more careful in not venturing into a guard's line of sight this time around. Additionally, the available modes of gameplay will be extended beyond pure stealth to allow for a greater variety of playstyles, meaning you can get a little more aggressive this time, or remain an undetectable ghost – but Roy assures us that no matter the approach, it will always be in the framework of being a thief.

"This is really important to us," Roy stresses. "Yes, we can make a game, but is it Thief according to you? Do you feel that Thief is back?"

"Restarting Thief has been a complicated process, but finally, I think we're there now." **PC**

Mission Briefing

We asked lead level designer **Daniel Windfeld Schmidt** for some of the nitty-gritty details behind Thief's rebooted mechanics.

PCPP: Are these "wider gameplay opportunities" going to sacrifice the stealthiness we've come to love in the series?

Schmidt: If you want to run around and use your resources to take out guards, that's an option. It's not a very viable strategy in the long-term – you're not going to be able to play Rambo. You have arrows, but they cost money. You can't just keep using resources, because eventually you're going to hit a wall. This is about balancing: to allow you to play the way you want, but at a cost.

What happens when you run out of resources?

We have a melee system that's not based in the "Focus" resource. It's a fallback, but it's tough, to play one-on-one with a guard. There's also a stealth takedown and an aerial takedown – those kinds of things you can do for free if you get into position and the enemy is in position, but it's not easy to do. We're not going to give it to you for free.

However, you can disable the Focus system if you want to. If you want to play it old-school, have fun – it's all supported.

Is it possible to play the entire game without killing anyone or even being detected?

It's possible. You can shoot people, and yes, it would kill them. You can knock them out with the blackjack. But you don't have to do either. Part of the system is that you don't have to be detected, but I'm going to make sure it's a challenge, that's for sure.

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A Brave New World

Diplomacy, Trade and Tourism - Exploring the end game of Civilization V



NATHAN COCKS is baffled why anyone would want to be considered a renaissance man, the food was unspeakable and they didn't have computers yet. Proud to be a gent of the modern age, he speaks to Firaxis' Dennis Shirk to find out what the new Civ expansion has in store for your average post-industrial age leader.

Never is the magic of the Civilization formula so evident as it is in its opening hours. When your domain extends to naught but a caravan of settlers and a single warrior, every move holds near infinite promise. Every decision you make feels so very potent in its ability to influence the rest of the game. It's not a feeling that lasts, however. By the time the mid game rolls around, you will have already set your civilisation's path and the rest of the journey feels somewhat rote.

The release of Gods and Kings was a strong salve to this 'mid-game malaise' but it was primarily focused on the early stages of the game; the end-game remained just as it ever was. All this seems set to change with the announcement of Brave New World, the latest full expansion for Civilization V.

It's clear from our conversation with lead producer Dennis Shirk, that Brave New World is definitely a mid to late game expansion. Each of the discussed changes is the kind that should

inject that early sense of possibility and potential into the latter stages of your campaign experience.

The culture victory is one of the most obvious examples of a play-style that tends to repetitious action in the final stages of the game; once you get broadcast towers, there's not a whole lot to do beyond clicking next turn until you win. To this end, Brave New World introduces a new culture yield – tourism. You still generate culture and buy policies in the usual way but now you also need to generate tourism by setting your great artists to creating great works such as real world paintings and music. Once displayed in a museum or similar structure, that great work begins generating tourism. Your goal in a culture victory is then to generate more lifetime tourism than your opponent's lifetime culture. In many regards culture can be viewed as a defensive asset

SPIES UNLIKE US

In line with the changes to diplomacy and the arrival of the World Congress, spies now have a new role to play in world affairs – as diplomats. By sending your spies to work as diplomats in other cities you can get clues as to which way a civilisation is going to vote on resolutions. If the vote doesn't look like it's going to go how you want, you can actually use that same diplomat to pay the civ to vote a certain way. Of course, a created diplomat is a lost spy, and how you balance this equation is going to be an interesting gameplay question.

while tourism is your cultural offense.

Diplomacy is also getting a makeover which should extend its initial gameplay reach. Key to the change is the World Congress, an in game event that occurs once a civ has met all other players and has researched the Printing Press. The arrival of the World Congress (which happens every set number of turns) allows certain participants (the host nation and the civ with the most diplomats) to propose resolutions which the rest of the world

then votes on. These resolutions can be big changes such as a standing army tax that makes maintaining a military more expensive, or a trade embargo against another player. If nothing else, such changes will make diplomacy a key part of any long term strategy, even if military domination is your end goal.

Perhaps most promising of all, trade has

**CIVILIZATION V:
BRAVE NEW WORLD**
DEVELOPER FIRAXIS
PUBLISHER 2K
DUE Q2
www.civilization.com



CLASHING IDEOLOGIES

The policy systems of Gods & Kings have not been unaffected in the wake of the changes to the cultural victory. Two new trees have been added but it's the addition of ideologies that promises the stronger impact. When the game reaches the Industrial Era, every civilisation has to choose an ideology (similar to a policy path) but these choices impact the way you interact with civs of a different ideology. Your people can actually become unhappy when a culturally influential neighbour doesn't share your ideology potentially forcing you to change. With enough cunning, you could engineer your own Perestroika in a rival civ.



POSTMODERN PLAY

We assemble the council to question **Dennis Shirk** on the real intent behind Brave New World

PCPP: What is the goal behind Brave New World?

Shirk: With Gods and Kings we really focused on the early game and the renaissance period. With Brave New World we wanted to look at the end game.

The feedback we've gotten from fans is that once you get to the end there's not a lot that is engaging.

So we saw that as the last frontier, so to speak, in really making Civ V just a great, awesome experience with interesting decisions from beginning to end.

The changes discussed seem to impact all players regardless of the victory they are going for. Is this a sign of greater interconnectedness of Civilization's systems?

This is one of the big goals of the game. For instance, before, you had the culture victory and with that you had to focus early on – you couldn't leave the culture victory path for the rest of the game. What we wanted to do for the end game is, not necessarily make it easy to switch, but if you were finding you were going to have problems, you could actually go and try and achieve another victory condition.

Can you provide a practical example of this?

Sure. For a culture victory, previously, you had to turtle up three to four cities and you weren't going to be a powerhouse in anything. But with the new culture victory, it's a viable strategy if you find that there's another culturally strong civilization out there, you might want to invade instead. So having the victory paths mix in with each other a little bit makes it a much more exciting end-game.

been significantly expanded for Brave New World. Trade routes make their first appearance since Civilization II and with them an extra helping of strategy for those who want to rake in the gold. Now it will be possible to set up trade connections abroad to earn additional coin. It is even possible to utilise your trade routes to send production and food to

obvious effects for diplomacy, where civilisations in trade with each other are much less likely to go to war. All in all, trade is now something that you interact with instead of simply setting and forgetting; a change for which we are very enthusiastic.

Of course the usual slew of new civilisations (long-time fans can rejoice over the return of the

“Science and religion run along trade routes which may make you rethink trading with certain neighbours”

specific cities – perfect for getting a new city on its feet, or rushing wonder construction.

It impacts more than just your income however. Science and religion also run along trade routes which may make you rethink trading with certain neighbours, such that they don't benefit overmuch from the connection. There are also

Zulus) and units (including the shock troopers of X-Com) will be in attendance, but it's the changes above that are really whetting our appetites. Brave New World looks set to finally fix one of the biggest problems the series has had – the late game. We'll let you know the how effective it is when the expansion hits in July. **PC**

Path of Exile

Click, Click, Click, Click, Click

Grinding Gear Games is a small New Zealand-based operation with some big dreams. Rather than make a mobile game or simple but charming indie platformer like many such operations do, it has instead decided to take on some of the most prestigious developers in the world at what can all but be described as “their own game”. Can a small outfit from Australia’s nearest neighbour conquer the action-RPG market with a free-to-play competitor? **DANIEL WILKS** puts on his robe and wizard hat and investigates.

It’s usually considered to be a little gauche to compare one game directly to another in a preview or review. It’s often an overly simplistic way of looking at the merits or flaws of a game without having to go through the actual effort of analysis. In the case of Path of Exile, however, such comparisons aren’t merely inevitable, they’re all but a necessity, because this upcoming action-RPG by Grinding Gear Games isn’t just defined by what it is, it’s also defined by what it isn’t.

One of the key ideas that Blizzard worked around during the development of Diablo III was the idea of accessibility - making the game easy to pick up for those new to the genre. Another was fairness - the game didn’t punish a lack of player knowledge or skill beyond player death. It was a successful approach in many ways, but it did lead to ideas such as progressively unlocked skills and simple cookie-cutter builds. The devs at Grinding Gear have gone on record saying that Path of Exile is the type of game they want to play, and it’s obvious from the very early moments of the game that they are veterans of the genre and unconcerned with ideas like accessibility or fairness.

IF AT FIRST YOU DON’T SUCCEED

You’re free to do what you want with

the passive skill tree (see over the page), but you had better be sure that you’re making the right decision every time you use a skill point. Unlike most other games in the genre, Path of Exile doesn’t feature an easy way to respect a character so you can try a new idea or playstyle. Individual respect points that allow you to move a single skill point are rewarded for completing some quests, or via loot drops, so if you want to try another approach you have to start all over again with a new character. If that sounds harsh, you should also consider the fact that in the beta it’s fully expected that most players will fail with their first character spec and reach a point in the game after which they can’t progress, forcing them to start all over again. Although there are undoubtedly going to be some tweaks to the difficulty before the game reaches a full release, it’s highly unlikely that there will be any changes to the level of accessibility. As it currently stands, Path of Exile isn’t a game that politely encourages theorycrafting; it positively and loudly demands it.

The active skill system is almost as customisable as the passive skill system. Instead of unlocking skills through levelling, skills gems are rewarded for the completion of quests or as loot drops. These gems are socketed



Alright gents, keep your shirts on



A LEAGUE OF THEIR OWN

Another idea Path of Exile brings to the table is that of Leagues - different approaches to playing the game. There are two basic leagues at the moment - normal and hardcore, but there are also temporary Leagues for in game events. At the moment these events are limited to PVP events and races - fixed time limit sessions in which players strive to get the farthest through the game and the highest level in a short time limit (12 to 15 minutes) - but there is great potential for more varied League content.

PATH OF EXILE

DEVELOPER GRINDING GEAR GAMES

PUBLISHER GRINDING GEAR GAMES

DUE Q4 2013

www.pathofexile.com





Why did I pick the arachnophobia ability??

CURRENCY EXCHANGE

Path of Exile is free-to-play, with microtransactions available for cosmetic in game effects and pets as well as extra inventory space, but that's not the only use of currency in game. Rather than having an in-game currency like gold, the game instead has a huge number of different orbs that function both as crafting materials and the primary currency for barter, forcing the player to constantly balance to need of the former over the desirability of the latter.

into equipment to grant the player that skill. Each skill is tied to the attribute that corresponds to the colour – blue for intelligence, red for strength and green for dexterity. These colours and attributes are important as the gems can only be placed in a socket of the same colour and the level of the gem is constrained by the player's corresponding stat.

The skill gems fall into two categories – active skills and support gems. Active skills are the combat and utility abilities that make up the backbone of the character's playstyle, such as fireball spells, sweep attacks, jumping smashes, teleports, auras that increase your damage, armour or mana regeneration and the like. Support gems modify the active skills in some way, increasing range, area of effect, number of projectiles, adding leech effects, freezing, a chance to set enemies on fire and more. The catch is that to have an effect the support gem must be placed in a socket of the right colour that is linked to the active skill socket.

It's all quite intimidating and rather inaccessible for a newcomer, but the amount of customisation possible in Path of Exile is staggering. No official release date has been given as yet but a late 2013 release seems likely.

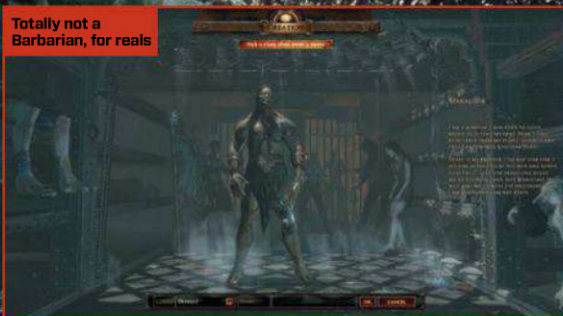
Path of Exile: The Tree of Life

All you really need to look at to see evidence of Path of Exile's approach to accessibility is this rather intimidating passive skill tree. It's absolutely massive and features hundreds of passive skill nodes interlinked by branching paths. Which of the six character classes you choose determines where you start on the massive skill web, but little more.

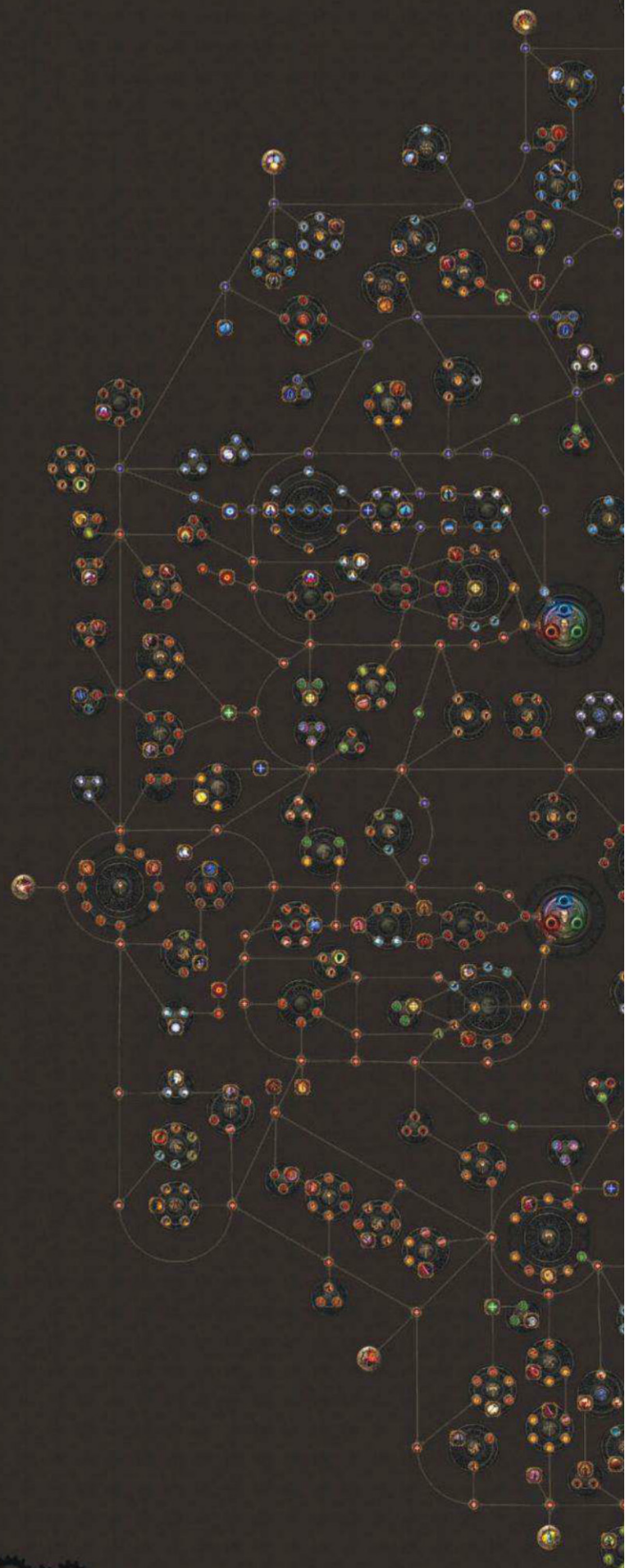
There are three "pure" classes - the Marauder, Witch and Ranger, who start in the middle of the section dedicated to the prime statistic, strength, intelligence or dexterity most associated with the class. There are also three "hybrid" classes that sit on the border of two of the attribute areas. Templar straddles strength and intelligence, Shadow dexterity and intelligence and Duellist strength and dexterity.

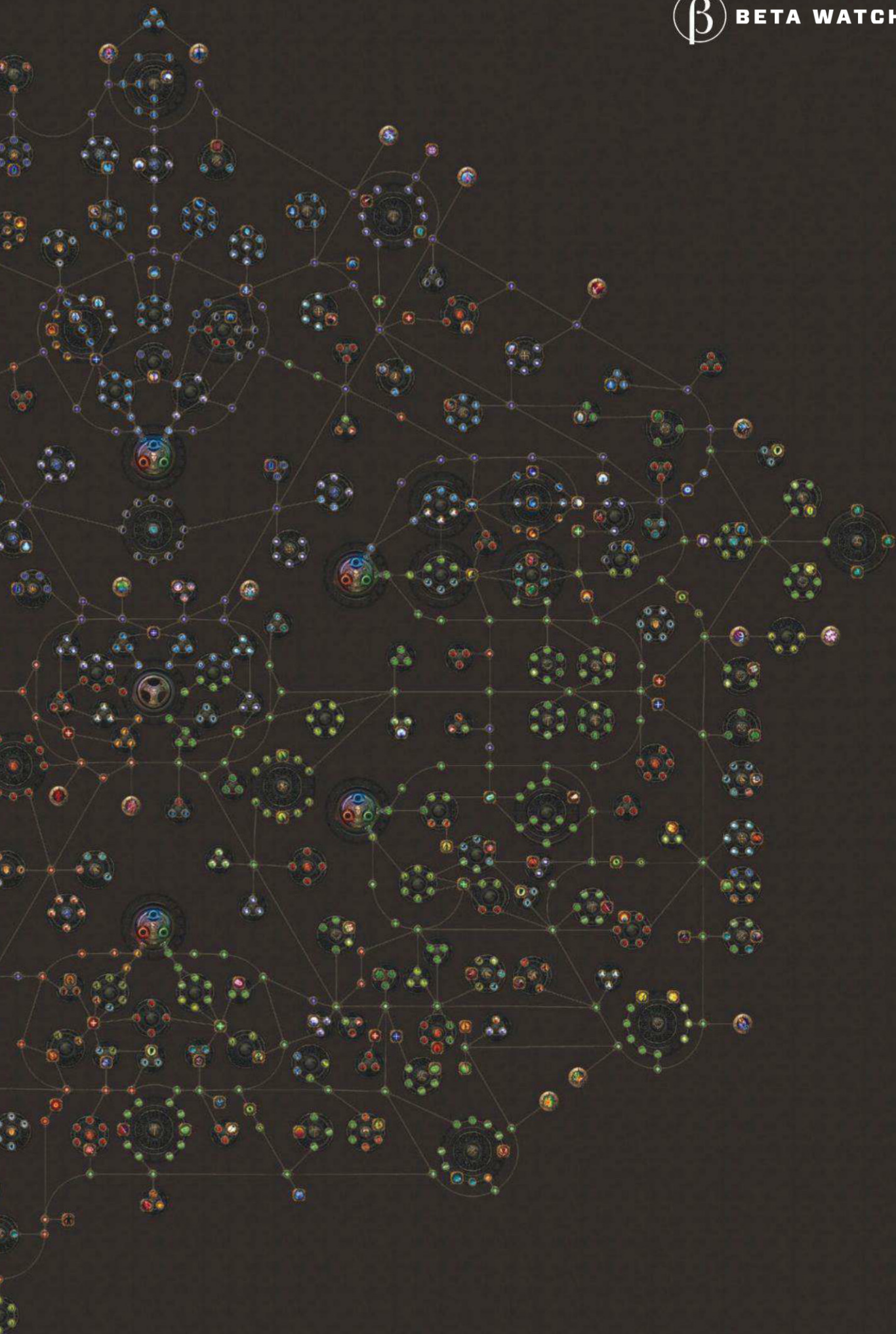
Where these character class starting points sit determines which passive skills they can access first but it doesn't limit them in what they can do. If you fancy making a Witch who wields a giant two handed sword or a Templar who uses a bow, feel free.

Totally not a
Barbarian, for reals



Oh sweet, this game
comes with Peggle!





Company of Heroes 2

Trudging through the snow without a plough in sight

If you're after a competitive one-on-one multiplayer title, *Company of Heroes 2* is likely to disappoint. From our time with the closed multiplayer beta, the cumulative effect of small changes introduced move this sequel's sweet spot from tight, tactical skirmishes to sweeping four-to-eight-player engagements.

This shift is due in no small part to the unit survivability slider being cranked as far down as possible. Look away for an instant, and your squad of engineers will disappear in a kick of dirt from a mortar blast. Flame weapons devastate squads in cover or in buildings, and can be requisitioned for the Russians' basic Engineer unit. Entire tanks can be lost in a moment's hesitation, as ice will crack and sink the heavy vehicles. There's no greater feeling than pulling this off against your opponent, but it pays to be vigilant to avoid having your armour meet a similar chilly fate.

And that survivability isn't even taking blizzards into account. When icy conditions roll in, visibility becomes strained at best, with line-of-sight dramatically reduced and an actual graphical whitewash overtaking the screen. Units who aren't huddled by a fire, or back at home base, gradually freeze to death.

These periodic blizzards have the effect of forcing upon both players a breathing period, where in not much movement occurs and units have the time to consolidate. For some reason, open-air halftracks still keep units warm, so their high availability risks mitigating the tactical implications of these new weather conditions. Nevertheless, playing in a blizzard is fun, tense and nerve-wracking all at once.



The real threat to units, however, comes from the ease at which artillery and mortar units can be requisitioned. Mortar can decimate infantry and light vehicle alike, and its prevalence makes it an unfortunate necessary as its own counter. We're not after symmetry here.

Off the battlefield and back at the frontend, *Company of Heroes 2* introduces a *Call of Duty*-like levelling and unlock system. The mere mention of one in a real-time tactics game sets off alarm bells where balance is concerned, but it's clear Relic is attempting to make the benefits that unlocks bestow as negligible as possible.

We haven't ever felt that a unit or encounter in a match has been unfair because of an unlock – so it's possible Relic has succeeded there. In fact, we never felt that any situation in a match was completely impossible to counter due to a higher degree of randomness and lower unit survivability. This isn't chess; this is war – more desperate and intense than before. **DANIEL HINDES**

COMPANY OF HEROES 2
DEVELOPER RELIC
PUBLISHER SEGA
DUE JUNE 25
www.companyofheroes.com



Here, our halftrack is literally skating on thin ice - you can see the sheet cracking behind the vehicle as it skids to its destination. Piling in Engineers who have the flamethrower upgrade is an extremely effective tactic, allowing them to spill fire from the vehicle and perform devastating hit-and-run manoeuvres.



As a blizzard approaches, we brave the ice and cross over to the nearest fire stack to keep warm. Capture points now have a radius around them within which units need only stand to capture. As such, they can return fire at enemies at full capacity, as they don't need to be locked into a capture routine on the flag itself.



The new TrueSight system is really only noticeable on a micro scale. Here, we were able to utilise it to sneak a squad of flamethrower Engineers in from the north, and have them pile inside the house to safely attack the enemy machinegun emplacement. With the old line of sight system, the enemy would have seen through the building and had time to reposition.



The Commander selection screen shows the abilities each will bring to the frontline as XP is gained. Additional Commanders with new abilities are unlocked as you increase in rank. Many of the Commander abilities are passive and somewhat indistinguishable. It's rare that you'll actually get to use the IL-2 bombing strike in a match - and if you do, you've probably already won.

Heroes & Generals

We know which one we'd rather be

Every PC gamer has pined for the day that a multiplayer game would come along that mashes real-time strategy with a first-person shooter. Who hasn't looked back to their rounds of Red Alert and wished that those little men they were ordering around were actual people?

Though games like Battlezone, Savage and Nuclear Dawn have fulfilled those fantasies to a certain extent, the strategic side was often lacking. Enter Heroes & Generals: a strategy/shooter hybrid that blows the former half out to continental warfare across World War II Europe.

It does this by allowing strategy players (the "Generals") to dictate supply lines and direct resources to various battlefields represented as control nodes across countries. When a General moves their resources into an enemy-controlled node, the "Heroes" then fight for control of it with a 30-minute capture-and-hold first-person shooter engagement. Basically, a game of Battlefield.

The key difference to other online first-person shooters is that engagements aren't supposed to be mirror-matches and entirely balanced. How the Generals have managed their supply lines dictates how many respawns will be available to the troops on the ground, what classes the troops can spawn as, and even what vehicles are present in the map. The Generals do this by moving Assault Teams across Europe – small "packages" of extra lives, classes, and resources. These move in real-time, so the Generals must be adept at planning as far ahead as possible. It also means that the efficiency by which a match is won feeds back into the strategic layer.

Being a free-to-play title, Heroes & Generals contains the usual assortment of cosmetic and weapon purchases. The beta shows that the balance is currently off, with buyable weapons clearly superior, and a significant distinction between the starting weapons of both Axis and Allies. It takes a rather excessive amount of time to level up and unlock the other classes, so there's a bit of grinding before the full tactical suite in the shooter phase is available. Nevertheless,

Heroes & Generals is shaping up to be compelling fusion of shooter and strategy, with the kind of scope that these genre blended titles have not tried to achieve before. **DANIEL HINDES**

HEROES & GENERALS

DEVELOPER RETO-MOTO

PUBLISHER SQUARE ENIX

DUE TBA

www.heroesandgenerals.com



Here's a great representation of the scale of the war in Heroes & Generals. Each control node enclosed with a red circle indicates a battle currently taking place. The white squares are Assault Teams that are being moved by Generals to reinforce these engagements. We're playing as the Germans (blue), and its neck and neck!



There aren't that many maps in the beta, though the game attempts to create variety by changing the weather and lighting conditions depending upon where and when the battle is fought in the strategic layer.

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10 TO WATCH



INFINITE CRISIS

DEVELOPER TURBINE
PUBLISHER WARNER BROS
DUE 2013
www.infinitecrisis.com

Here's the thing about superhero comic books: they're rubbish. No one wants to admit it, but they are. The instant you have multiple "canon" plot lines running simultaneously that conflict with each other, prompting nerd rage arguments over universes and timelines, you've jumped the laser shark. That's where Infinite Crisis comes in: in the comics, it converged all storylines into one. In this game, it allows every DC hero variation to become a MOBA character. Check and mate, DC.



LEGEND OF GRIMROCK 2

DEVELOPER ALMOST HUMAN
PUBLISHER ALMOST HUMAN
DUE TBA
www.grimrock.net

We enjoyed Legend of Grimrock, but we thought it would have been nice to come up for air once in a while and breathe something other than dank cave troll sweat. Thankfully, the sequel takes us outdoors, into the nice warm sunshine and oh dear what is that thing trying to kill us? Almost Human toyed with a Grimrock roguelike follow-up and a continent-spanning adventure, but it's chosen to focus on the compact core experience that made the first so great: tiles, puzzles, and baddies.

HEAVY GEAR ASSAULT

DEVELOPER MEKTEK
PUBLISHER MEKTEK
DUE 2014
www.heavygear.com

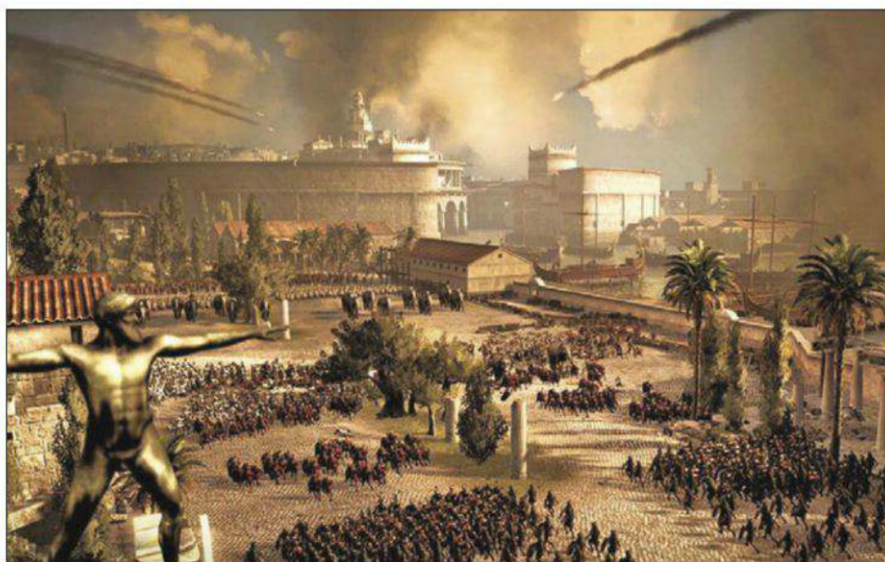
As if Hawken and MechWarrior Online weren't enough to mech your day, along comes Heavy Gear Assault – the latest title in a classic mech franchise. This one will be a little different, however: Assault will be a multiplayer-only title that utilises Unreal Engine 4 to create a gladiatorial arena that mech pilots compete in. Location-specific damage, destructible terrain and reputation all factor into the free-to-play title's combat. We'll never say no to more giant robots.



FROZEN ENDZONE

DEVELOPER MODE 7
PUBLISHER MODE 7
DUE 2014
www.frozenendzone.com

You know what Frozen Synapse could have done with? More FOOTBALL. At least, that's what we assume Mode 7's vocal fanbase were screaming, which led to the announcement of Frozen Endzone. It's the same kind of simultaneous turn-based strategy, and still bathed in a neon glow, though now instead of shooting each other your units will be going for the tackle, or to shoot some hoops, or something. Which sport were we talking about again? HUDDLE TIME.



TOTAL WAR ARENA

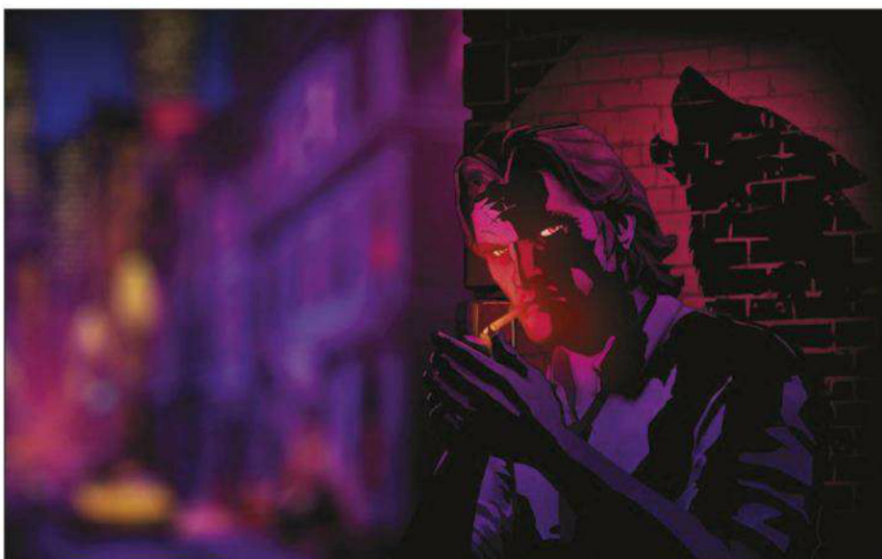
DEVELOPER CREATIVE ASSEMBLY
PUBLISHER SEGA
DUE TBA
www.totalwar.com/arena

The Creative Assembly seems a little confused, telling us its new Total War title, Arena, is a MOBA, and also not a MOBA. Sure, when you think of MOBA, your mind flitters straight over to League of Legends or DOTA – but what Arena wants to capture is that smaller scale strategy. To this end, you'll only control three units, as opposed to the main series' 20, in smaller-scale multiplayer battles. But will there be lanes? Will we chop through barbarian creep? History does not yet have the answers.

THE WOLF AMONG US

DEVELOPER TELLTALE
PUBLISHER TELLTALE
DUE TBA
www.telltalegames.com/fables

Alright, Telltale, we get it. You can tell a good story. And, yes, based on what you started with (Sam & Max) to what you're working with now (The Walking Dead) you've proved that drama is harder than comedy. So what's this new Fables adaptation? A prequel to the comic series, in which you play as detective Bigby Wolf and must protect other fabled characters. It's a neo-noir vision of the Three Little Pigs, then. Oh hey, you think you're a funny guy?



EXPEDITIONS CONQUISTADOR

DEVELOPER LOGIC ARTISTS
PUBLISHER LOGIC ARTISTS
DUE TBA

www.logicartists.com

This tactical RPG just scraped over the line to meet its Kickstarter goal, and we're glad it did. We can't think of any other Spanish Conquistador games that propose to offer this kind of intimate strategy and branching storylines – alongside this level of detail in character traits and histories. Also you get to equip your Spaniards with macuahuitls. Don't know what those are? A long sword with spikes. Nasty. Also, The Nameless Mod's Jonas Waever is on board. So are we. Sporks forever.



SKYWARD COLLAPSE

DEVELOPER ARGEN
PUBLISHER ARGEN
DUE Q3

www.christophermpark.blogspot.co.uk

The developer of AI War has revealed its new title – a turn-based strategy game with a pinch of 4X and a dash of god-game simulation. Set on a floating landmass which you build at the same time as you oversee two factions conflict, Skyward Collapse is about balancing the fight rather than trying to win it. Your goal is to ensure that neither side gets annihilated – making this something of an anti-strategy game. We're not sure if it'll make for a thrilling eSports.

BLACK ANNEX

DEVELOPER MAN FIGHT DRAGON
PUBLISHER MAN FIGHT DRAGON
DUE Q4 2013

www.blackannex.net

Felt like Starbreeze's first-person shooter Syndicate reboot wasn't really enough like Syndicate? Then Black Annex could be for you. Developed by sole programmer and native Victorian Lance McDonald, the game follows the isometric exploits of a team of infiltrators and saboteurs. Shoot people, hack computers, and be a general corporate nuisance. Then make bank. Collect and gear up agents to take on progressively tougher buildings, then fill out your expenses afterward. Just like a real job!



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BATMAN: ARKHAM ORIGINS

DEVELOPER WARNER BROS GAMES MONTREAL
PUBLISHER WARNER BROS
DUE OCTOBER 25
www.batmanarkhamorigins.com

The Arkham series has established itself as the pinnacle of the superhero videogame. Not that such a feat was especially difficult, but anyway. Arkham Origins is the third in the series, though it's a prequel that will set the stage for Batman's first encounters with his rogues gallery.

Arkham City's familiar combat will return, though new developer Warner Bros Games Montreal promises



"new layers, new opportunities, new tactics" along with a remote claw similar to Just Cause 2's grappling hook. Slick.

So what of the world this time around? Half of Arkham Origins will be set in 'Old Gotham', with the other half set in the much more upper class 'New Gotham' with the two areas connected via bridge. Expect that bridge to be destroyed at some point. Once again, the world will be full of random side missions for Batman to tackle whenever he fancies.

So: new developer, new tricks, new Batman, familiar gameplay. We can't deny it – the system works. Maybe we don't even need Batman after all.

RED DAWN

WHO JOHN SHAFTER
WHERE CONIFER GAMES
WHY AT THE GATES



THE PCPP INTERVIEW

We talk to the designer of *Civilization V* about his new indie start-up Conifer Games, and about how *At the Gates* will empower players – not to found a great civilisation, but to destroy one...

Jon Shafer's career has followed a curious trajectory. A game design prodigy, shortly after completing Sid Meier's *Civilization V* he left Firaxis to lead a smaller team at Stardock. Today, he runs an indie studio with just three employees, himself included. To understand this calculated downsizing, one must take into account his unique work style.

"I come from the Sid Meier Model of game development, where you have a lead designer who also does the gameplay and AI programming. Obviously, that's quite a bit of work to have all on one person. The Civ V team was about 40 or 50 people, so in addition to doing all the game design, and all the gameplay programming, and a good deal of the AI programming, you're also managing a very large team.

"If you split your job between design and management and programming, that's probably a little too much for one person, and that's not good for the person, it's not good for the team, it's not good for the game." Even with a smaller team at his command at Stardock, the organisational overhead was still too much for his tastes. "Ultimately, I found that, as much as I enjoy working with

other people, the way that I got into this business was through design and programming, and that's really what I wanted to do. So I decided that the best way to get to my ideal position, which is

a snowball effect, where in the early game, that's when it's most challenging, when you're trying to figure out what's going on, you get resources, you're battling other foes, you're exploring and colonising the map. And then you cross a threshold where you become so strong and so developed that the game just gets easier and easier until you



"In the latter stages of the game, it becomes extremely difficult to find resources"

a really small team, was to set off on my own."

Hence Conifer Games, and Jon's successful Kickstarter project. While superficially similar to the Civ series we all know and love, *At the Gates* will let turn-based strategy fans embark on a very different kind of gameplay arc. "Typically in a 4X game, it's an exponential growth curve. Or

win. In *At the Gates*, that's not entirely the case."

This will be partially due of the presence of the Romans, a superpower that you're not on the same level with – certainly not in the beginning. Then there's the fact that natural resources will deplete over time. "As the game goes on, it becomes harder and harder to

find metal, and wood, and other resources that you need to develop your economy, and keep your army in the field. So you'll be developing, and improving in some ways; you become Romanised, and you acquire new technologies, to build more advanced weaponry: catapults, ships, and heavy cavalry. But you'll also be running low on resources.

"In the latter stages of the game, it becomes extremely difficult to find resources, and you really have to focus on the objective: which is to win the game, and to take down Rome."

At the Gates has the potential to keep the high-stakes dynamism of the early years of a Civ campaign alive right through to the end, thanks to fact that you'll control a migratory kingdom. "You're not fixed in one location; you're going to be on the move. You're always on the hunt for some new sources of metal, or food, or whatever the case may be." Adding to this maelstrom of possibilities will be weather effects and changing seasons that will dictate the supply lines and tactics at your disposal. "You can't come up with a single strategy that works throughout the entire game, and push the button and watch it play out. You have to always be adapting to what's going on, changing priorities and taking advantage of new opportunities.

"The Romans are more

advanced, more established, and they have a more developed supply network. Whereas playing the barbarians, you have to be on your toes a little bit more. You're more beholden to the seasons. The Romans could supply their armies in the winter if they really wanted to; it would be expensive. But as the barbarians, you're kind of stuck to playing around in summer."

It's a radical approach, but Jon felt compelled to take it. "I didn't want to do the exact same thing again. That's a big thing for me in game development; is always trying new things, trying to innovate, trying new, unique ideas. So I wanted to tie supply into the map, into the evolving seasons, and see what we get out of that. It's going to be a little bit more of a strategic approach."

"An analogy I like to use is: it's like a well-developed game of Chess, where each side has a few pieces, and the board is mostly open, but where you send your pieces in each individual move can be significant. Whereas in a tactical game like Civ, or Panzer General, which was kind of the inspiration for Civ V, every move stacks on itself, but there's no one single move that you make, and then just everything turns immediately. That's more of the approach that we're taking with At the Gates."

Just as Jon learned the Sid Meier Model by working under the master, he learned some very different lessons from Stardock's Brad Wardell, the designer responsible for the poorly-received Elemental: War of Magic. Wardell's passion blinded him to the fact that, at launch, his game was an incoherent mess. While still on very good terms with Wardell, Jon is mindful not to follow in his footsteps too closely – yet he still finds it a challenge to assess whether what he's working on is actually any good.

"You really have to pace out how you're developing your game. If you're doing crunch time, and you're working really hard, and you're really focused on the details, and trying to get bugs fixed, and features added,

you can often lose sight of the bigger picture. You really have to be disciplined, and make sure that you step back, every few weeks, at least, and take a higher-level view of your project, and what state it's in.

"This is something I've done with At the Gates several times, even though we're not all that far into the game development yet. And there are times when I've looked at features, and I said: 'I've done a thorough analysis, and I've come to the conclusion that it doesn't really fit in.' So I'll throw 'em out, and then try something new. One of the things that's difficult, as a designer, is focusing on what really counts. You don't want to just have just everything that you could possibly have in the game. You have to really be mindful of what's in there, and what effect it's having.

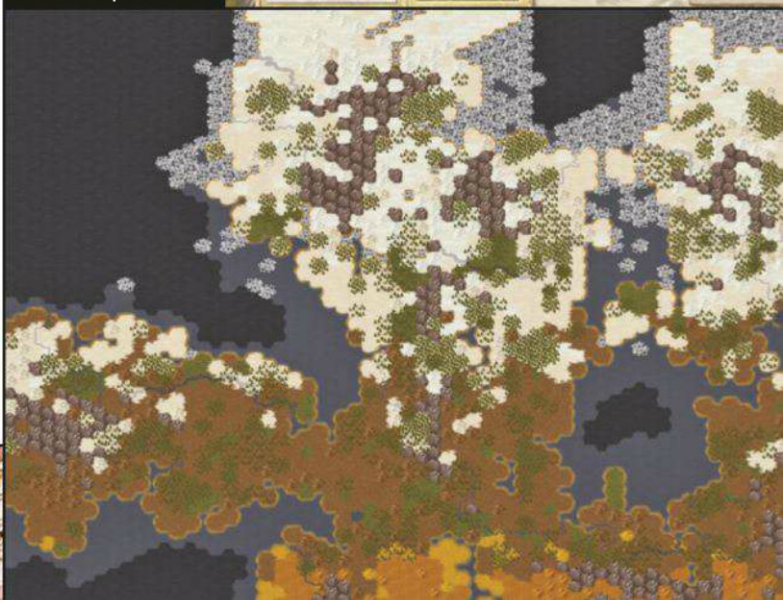
"It's always painful to throw things out, but it's less painful than delivering a bad game."

Jon has also recruited over 400 playtesters, but even this is not a fool-proof solution, as their feedback is often difficult to interpret.

"If somebody says: 'I don't think this game is fun,' that comment, in itself, might not be very instructive. Or if they have a specific suggestion, like: 'You should add ponies to the game.' Even if you don't add ponies, or even if adding ponies might not be a great idea, there's always something behind that feedback that you can analyse and you can learn from.

"Let's say somebody says: 'You should expand on the religion system.' That's not really what we want to do with the game, but what's the thinking behind that feedback? Maybe it's that there's not enough to do in each turn, or maybe it's that you're spending too much time fighting, and not enough time developing your empire. There's always things that you can pull from feedback, and you need to bring in as many eyeballs as you can."

And then, presumably, poke them out with a sword. JAMES COTTEE





SUSTAINABLE NATURE

Thousands of layoffs. Dozens of studio closures. Can the games industry continue as it is?

The games industry is facing a real problem: efficiency. It's a problem described so far back as 1975 in Fred Brook's *The Mythical Man Month*. Observed at IBM, his central idea is that throwing more people on a project doesn't ship faster or better, but actually takes longer and the additional organisational complexity can lead to quality issues.

These days, big budget mainstream games often require hundreds of people to develop, sometimes across several studios. With new consoles near, productions are about to hit the tipping point of sheer unsustainability. As technology improves, the amount of detail required both in programming and artistic manpower also increases. Surely there has to be a limit to how big projects can get?

Inevitably, even the most optimistic defenders of game industry practices must admit that there must be some limit to the number of people and the amount of money thrown at the creation of games. What is that limit? A billion dollars? Is it expected that every blockbuster production become the games industry equivalent of James Cameron's *Avatar*? At some point the math just doesn't add up and there is simply no way for developers or publishers to get a return on their investment.

So is all hope lost then? Must we resign ourselves to a mind-numbing cyclical doom and gloom of late and lower quality games shipped upon what is tantamount to miserable digital ditch-digging? Looking at the engines and middleware tool providers, and also the burgeoning indie scene, then answer, thankfully, would seem to be a resounding "No!"

The game industry has a number of effective solutions at its disposal which can hopefully lead to better games developed in less time, with less money, and far less

human misery. There are three areas in which we might find hope: new development practices, new organizational structures, and better development tools.

New development practices brings to mind methodologies like Agile, where lean teams rapidly iterate on smaller parts of the project. A small core group of 3-5 developers might spend a week or two fleshing out and balancing the core weapons in a game versus the more traditional method where any number of developers may be arbitrarily assigned across longer periods of time. But Agile can't be the only solution because at a fundamental level it doesn't address total

"In the spring of 2000, there were two major engines and almost no middleware"

team size and budgetary constraints.

Next we have organizational structure – Think Valve's "flat is best" mentality, where purportedly there are no managers and the project organization and workload falls upon a few number of highly motivated, self-directed individuals. This method has brought us titles like *Half-Life 2*, *Portal*, and *Left 4 Dead* not to mention the billion dollar a year behemoth we know as Steam.

And finally, we have better tools. I saved the best for last, my personal favorite. Across the various disciplines we are starting to witness something extraordinary happen in the tools space. When I entered the game industry in the spring of 2000, there were two major engines and with a few exceptions in audio, almost no middleware. As either an indie or a large established developer you had to either write your own engine and your own tools, or


fork over six figures for an engine like Quake or Unreal. The barrier to entry was extremely high, and even developers who could pay to play were exposed to more significant risk than anything we know of today. 3D games were still a relatively new frontier filled with developmental unknowns.

Thankfully, all of that has changed. With Unity or UDK both indies and establishment devs can jump into their next project at a relatively low cost or even free. The tools are orders of magnitude better, and getting better with each major update. uScript for Unity and UDK's Kismet mean that even non-programmers can whip together functional

and even shipping gameplay without writing a single line of code.

Artists have tools like Luxology's modo and Allegorithmic's Substance

Designer to speed up their workflow. Many games, such as *Battlefield 3*, *Halo 4*, *Gears of War 3*, and Bungie's upcoming *Destiny* use procedural assets via tools like SpeedTree. The mileage will vary, but a couple days spent modeling a variety of trees, or even a few hours spent modeling and texturing one tree can, depending on the task, be reduced to under an hour with such tools.

The aforementioned solutions are just a taste of the future in store for game developers and gamers alike. And looking at the tools transformation of recent years as well as its undeniable results, I am convinced it may be our only way to escape ten-year, thousand-person projects that cost half a billion dollars. 



ERIC VON ROTHKIRCH has, since 2000 worked at EA, 3D Realms and Triptych Games. He is currently seeking his next great adventure!

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THE LIGHT ON THE HILL

Will Windows 9 require always-on internet? It's a possibility so stupid, it might just come true...

So many institutions have passed away in recent weeks. LucasArts, once a Skunk Works of innovation, has been retired in favour of a purely licensed model of development for Disney's Star Wars properties. The XCOM shooter has been scrapped, revamped as what could be a stripped-down, I Am Alive-esque budget title. It's conceivable that Randy Pitchford could try to rescue the project, but it's far from likely – not doubt his hands are full whipping Furious Four into shape.

In unrelated news, there was also the passing of the Pommy PM that punters loved to hate, and the subsequent wave of reinterpretation of her life's work. Some have lauded Thatcher's legacy of creative destruction – how she tore down inefficient, subsidised industries that employed the semi-skilled to make products that no-one wanted to buy. These reforms were accompanied by a peculiar effect: the retrenched auto workers and coal miners didn't magically get jobs as merchant bankers and app developers. When the demand for labour returned to the UK, it was met by workers flooding in from the furthest corners of the European Union, while around five million docile Poms stayed in their council flats, contributing nothing to the economy save for an insatiable demand for alcoholic cider and chips.

Now, with the benefit of hindsight, many are given to wondering if the millions of hours of productivity lost to industrial action wasn't so bad after all; if the mountains of refuse and corpses left by striking garbos and gravediggers was a small price to pay so that the working classes could at least have the dignity of an honest day's work for an honest day's pay. Maybe, just maybe, the farce of paying people to perform worthless

jobs was a lesser evil than paying them them not to work at all.

It's a fascinating topic; for further reading, I recommend the 'Hipsters on Food Stamps' essay series. It's a scary, uncanny look at our future. For while it's all well and good to float your boat by debating precisely how evil Thatcher was, it's a ship that's sailed. The really interesting topic is where this trend is heading.

In related news, the National Broadband Network has rolled into Kiama, a delightful town on the NSW south coast. Nestled between majestic rolling hills and the azure expanse of the Tasman, Kiama is renowned for its blow holes, its historic buildings, and its spectacularly high levels

"Now that ambition and the work ethic are obsolete they are threats to public order"

of youth drug abuse. Yes, despite being ringed by beaches, zested with refreshing ocean breezes, and a very short drive from the Jamberoo Recreation Park, Kiama has relatively few opportunities for its ambitious youth. The lucky escape. Those left behind crave distraction.

In this context, the NBN is possibly the most visionary bit of nation-building our current government has embarked on. The mining boom will end, as all booms do. The quarries will close, and the steel mills too. Deprived of meaningful employment, the newly idle multitudes will need to be pacified, and what better techno-truncheon for the task than League of Legends, and the unlimited fail vids of YouTube.

Some may say that the NBN is the equivalent of a 'gold-plated toilet seat' that

would never pass a 'cost-benefit analysis.' But it's a toilet seat we need. Now that ambition and the work ethic are obsolete they are threats to the public order. Best to drown them in a sea of dopamine.

The NBN is essential for this task. Judging by the sarcastic tone of the tweets of Microsoft's now ex-creative director Adam Orth, the next model Xbox will require an always-on internet connection in order to function. And given Microsoft's delightful trend towards one-size-fits-all OS development, it doesn't take a tremendous stretch of the imagination to see Windows 9 requiring always-on internet as well.


While Microsoft has stated that Orth's personal views do not reflect the company's

'customer centric approach', the fact that he tweeted them without expecting to subsequently 'resign' would suggest that he and his colleagues honestly don't see

what the fuss is all about. Perhaps you've seen the animated GIF of Bane reading out Orth's tweets to the mob: "Sometimes the electricity goes out. I will not purchase a vacuum cleaner."

"The mobile reception in the area I live in is spotty and unreliable. I will not buy a mobile phone."

"Those people should definitely get with the times and get the internet. It's awesome."

In the long run, any business that treats its customers with such contempt has two choices: Death, or Exile. In the short run, the light on the hill is the light on your modem. If it ever goes out, we're sunk. 



JAMES COTTEY has replaced his arteries with fiber optics. He not only sees the light, he bleeds it. For you.

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MY WAY

When the perfect life is getting a little dry, add rain, thunderstorms and hail

When I recently purchased the Seasons expansion pack for The Sims 3, it lodged a song firmly into my head; Seasons of Love from the musical RENT. It was just the word association to start with, I'm sure, but the lyrics somehow suffused my experience, especially after I also picked up University Life. Because of the song's words, I found myself fixating on the flow of time, customisation and that thing The Sims 3 does really well; player driven success, without a trace of failure.

If you're unfamiliar with RENT, it's set in New York's Lower East Side and concerns a community of artists/musicians, many of who are living with HIV or AIDS. Seasons of Love asks, "How do you measure a year?" in the face of death. Although the answer may eventually be (spoilers), "love," the song also raises, "daylights, sunsets, midnights, cups of coffee." You know what? No Sim of mine has even had time for a single coffee.

In fact, until recently, during those last days leading up to a Sim's demise, I'd have Gramps filling the fridge with moodlet boosting home cooked meals, reading one of every kiddy skill book to the toddlers and, mostly, upgrading toilets. The Elder would have his top tier pension and lifetime want fulfilled, obviously, and it's a lot easier for the Adult Sims to earn a daily promotion, max a fourth skill and complete every opportunity with a functioning bathroom, after all.

But, finally, when the Grim Reaper arrives, to a sinister, galloping string line, with tolling bell and dissonant pipe organ, sweet songs from musicals are banished and you're left wondering, "What was the point of that?" So what if the Sim maxed their career, several skills and achieved some crazy self-directed goal like jogging 6.3 million miles without breaking a sweat? It's all over. Death

in The Sims 3 plays out even scarier than previously in the series, too. There are no hula angels, here.

It was when the first snow started falling, after installing Seasons, that I first, probably ever, wanted my Sims to do something fun. Really, there's not a lot to achieve in Seasons, except for learning a few new skills and collecting festival tickets to buy pointless knickknacks. In fact, you're forced to take, brace yourself, holidays. Like, on days you could be getting promoted. Anyway, I have to say, snowball fights are quite nicely animated. I may have even directed my artist Sim to paint some snowscapes.

Of course, witnessing the change of

"Death in The Sims 3 plays out even scarier than previously in the series"

seasons also reinforces the passage of time. In The Sims 3, life is already short if you want to achieve something special. If you're like me, you'll only make sure your toddler is toilet trained so you can pick optimal traits when she grows, and not get stuck with "hydrophobic" or "cat person." So, imagine the pleasure of then discovering University Life, in which time is literally stopped while you work on skills and gaining an additional, free trait.

Surprisingly, this sudden lack of time pressure saw my Sims actually socialise a bit, with superfluous friends, who wouldn't actually contribute towards begetting the next generation. Or, they might go to the campus' bowling alley for Fun rather than max out the new "Street Art" skill which, by the way, can turn your neighbourhood into something that looks like a set from RENT. It strikes me that,

although I rarely appreciate these parts of the game, others thrive on them.

If you're a little less of a stickler for the official rules than I, the Sims 3 has incredible scope for customizing both time and other aspects of your experience. With so many games having simple gradations of difficulty, often balanced ineffectively, being able to set the length of Winter or even disable fog/werewolves/celebrities is a great luxury. You can even (collectively) customise the number of days for each stage of your Sims' lives.

This customisation can beautifully support individual, player led objectives and I think this is really where The Sims 3 shines. Unlike

in The Sims 2, there rarely has to be any punishment beyond a silly moodlet, here or there. Hating an accidental cold shower, because it's a cheap

fixture, is really the extent of it. Oh yes, the real punishment is a creating a life that didn't fulfill you, be it through collecting all the bugs, or writing lots of love letters. Be warned.

So, now I spend my Elders' last days making snow angels. Well, unless it's Summer, in which case fishing is a good option. And, of course, filling the fridge with fresh fish for your family doesn't really hurt, does it? One way or another, death, in The Sims 3, is the great equalizer, the proof that all Sims will be returned to the same painted-on ground texture, regardless of how many sculptures they made, or screencaps they shared to Facebook. Maybe I'll talk about resurrection another time. **PC**



MEGHANN O'NEILL maxed the street art skill, defaced a building and was hit on by the detective who arrested her. So many moodlets.

"DARK looks to make the stealth genre cool again"

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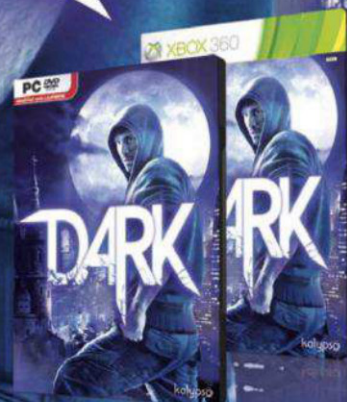
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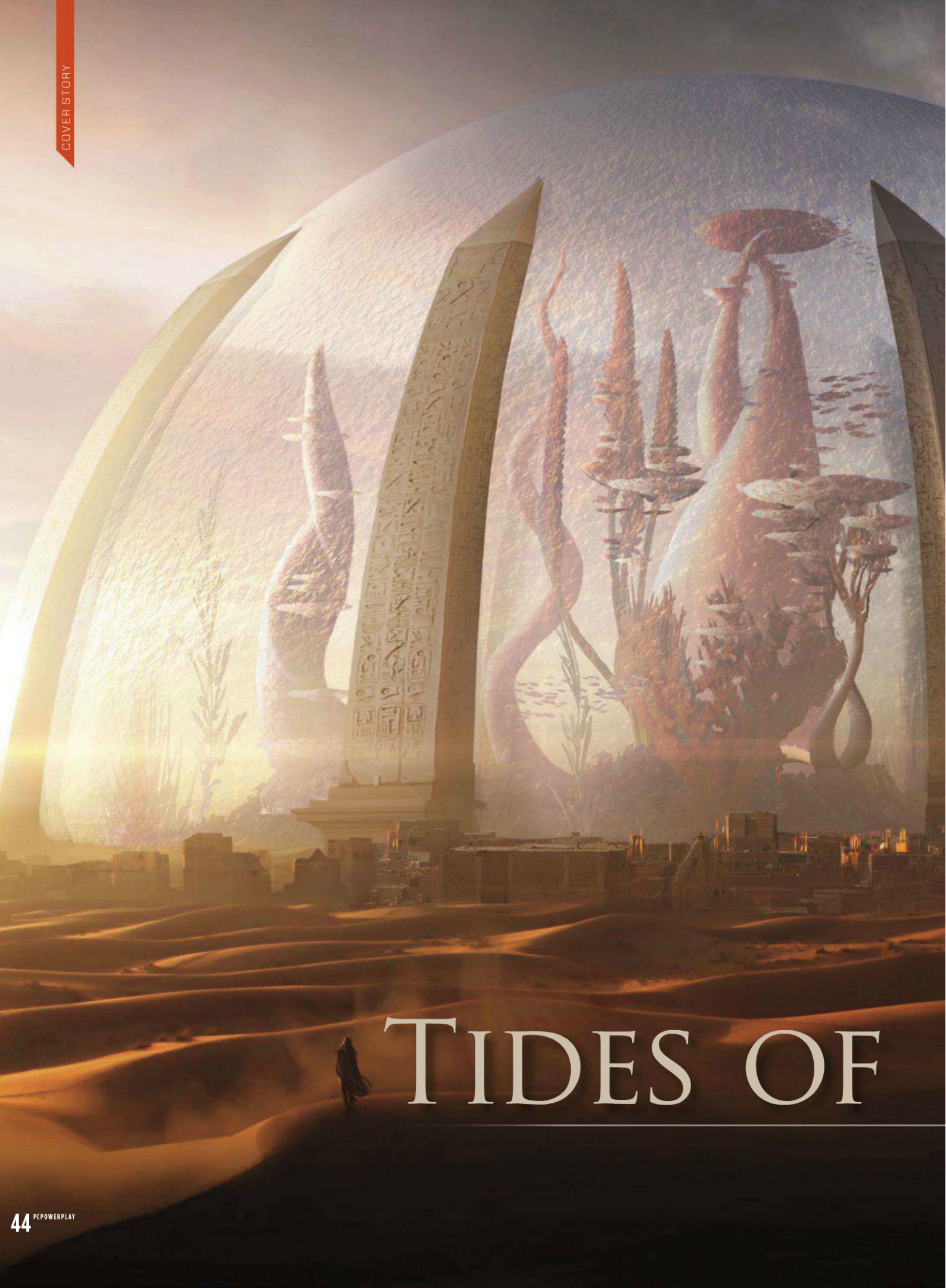
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TIDES OF



TORMENT

Continuing the legacy of PC gaming's greatest RPG

NATHAN COCKS sheds the shackles of his plain mortal existence to journey to strange and wonderful lands as he speaks to the team at inXile about its upcoming game – *Torment: Tides of Numenera*.

Every CRPG gamer worth their salt has, if not played, at least heard of *Planescape: Torment*. When it released in 1999, the game was a revolution; featuring great writing, a wonderful cast of characters and turning the tropes born of many years of fantasy RPG gaming on their head. 14 years later, and Brian Fargo, along with the rest of the inXile team, are looking to unleash the magic once more. And it is magic we've all been desperately hungry for, if the success of the Kickstarter campaign that funded this project is anything to go by.

Torment: Tides of Numenera may not be a direct sequel to the Black Isle Studios' classic, but there is no doubt it carries the blood of *The Nameless One's* story in its genes. Many members of the original game's team are back on board to contribute in various ways, and a strong focus on narrative interwoven with consequence-driven roleplaying gameplay remains the fabric of the game's core.

A less obvious, but no less important, connection is the world in which the game is set. Monte Cook is a name that will need little introduction with fans of the RPG genre; a pen and paper game designer with a long history, Cook was a key contributor to the *Planescape Dungeons and Dragons* campaign setting that was the location for the original *Torment* game.

As the subtitle not so subtly implies, the new *Torment* takes place in the campaign setting of *Numenera* (known as the Ninth World) which is Cook's latest tabletop RPG work (itself the product of a separate successful Kickstarter campaign). *Numenera's* Ninth World is a 'science fantasy' universe set in the far future. In this world, humanity exists amongst the wreckage and refuse of previously great advanced civilisations that have

TORMENT: TIDES OF NUMENERA
DEVELOPER INXILE
PUBLISHER INXILE
DUE Q1 2015



The Unity engine allows inXile to rapidly create environments

long since crumbled. Ancient advanced technologies lie strewn throughout the landscape, powerful remnants of the past that also serve as devices of great power.

It's a strange and bizarre world and one that is a perfect fit for the kind of story we would expect from a game with the Torment name. Just as with the original game, Tides of Numenera is set to star a truly unique playable character. Players assume the role of the Last Castoff, the final vessel for the consciousness of an ancient man who discovered, through the power of the Ninth World's ancient technologies, the ability leave his physical body and be reborn. However, this ancient being is unaware that each abandoned body awakens with a consciousness of their own. This man, dubbed the Changing God, has attracted the enmity of a powerful force called the Angel of Entropy, who seeks to destroy this 'god' and his past bodies. Being one such body, the Last Castoff is also being targeted and the player's goal is to find their past master before both become victims of this force.

Speaking to writer/designer Adam Heine about the story and themes for the game, it is clear that the two games will feel appropriately connected. "Months before we launched the Kickstarter, we spent a lot of time talking about what people loved about Planescape: Torment and what made it so great." He tells us, "We knew we needed a rich, almost-literary story that asks serious questions. We needed a world and characters completely different from standard fantasy archetypes. We needed deep dialogues

that give the player real - and sometimes difficult - choices. And after a few discussions, we also realized we needed to steer away from the epic "baddy about to destroy the world" storyline and toward something more personal. These are the things we believe made Torment unique, and so they've become our foundational pillars for Tides of Numenera."

One of the most enjoyable things about the original game was the strangeness that permeated the entirety of its design.

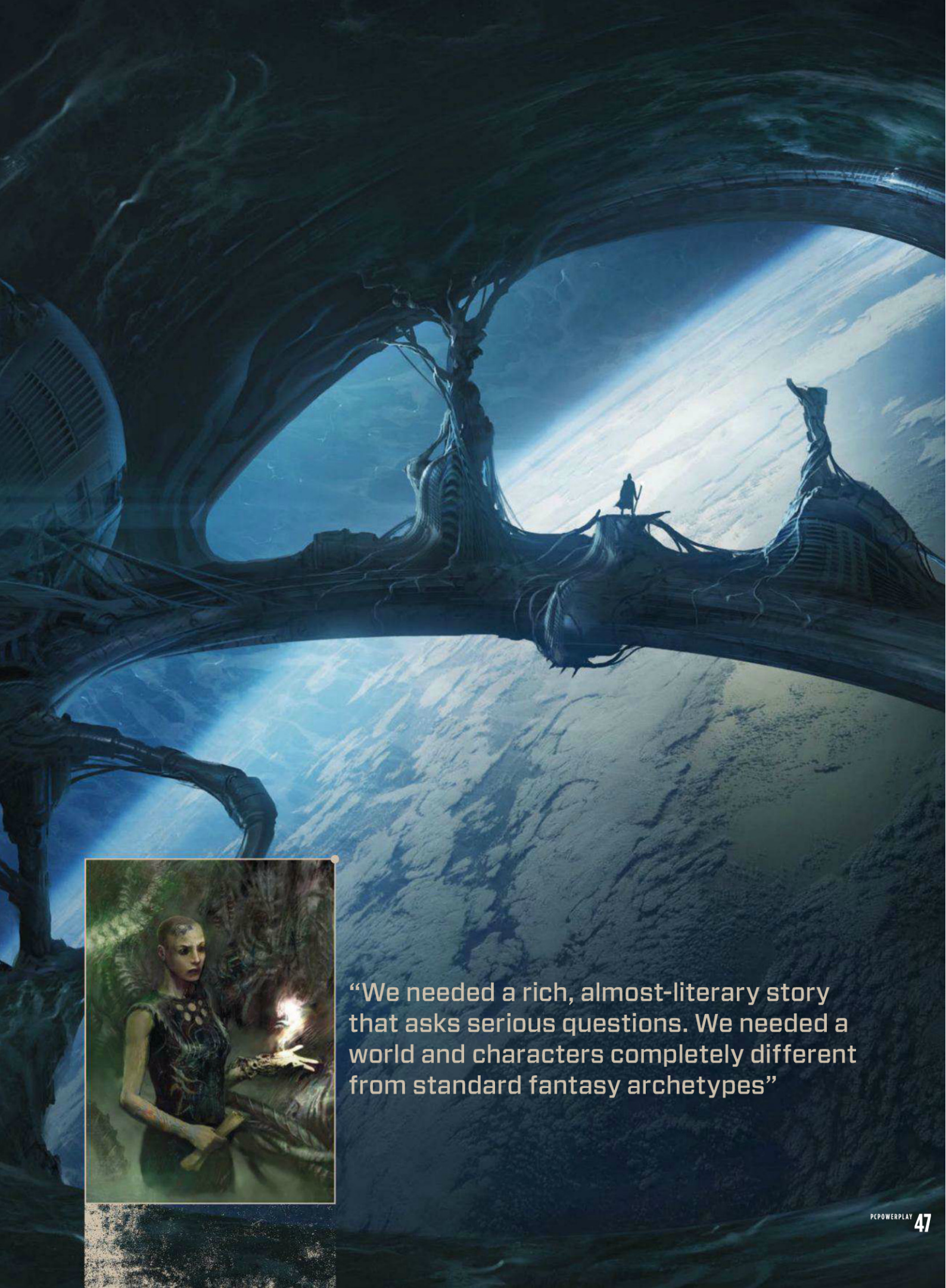
An immortal protagonist; rule sets that allowed class changes mid-game by simply recalling the memory of former lives; succubi that favoured intellectual lusts over physical; boss characters can be defeated via dialogue alone. Torment was a game that subverted expectations in numerous ways.

"You've hit on one of the things we love most about the Ninth World [Numenera's Setting]," Adam enthuses, "Although the setting is technically science fiction, in that it takes place on Earth a billion years in the future, it's really science fantasy: the leftover technologies that people use in their daily lives are so far beyond anything they, or even we, can understand that they're essentially magic. So much of the 'serious lunacy' in Planescape: Torment – portals to other planes of existence, talking skulls, ability-changing tattoos, rats that become super intelligent in large groups, etc. – would all be right at home in the Ninth World, even if the underlying workings are slightly different."

Brian Mitsoda (writer on Vampire: The Masquerade – Bloodlines), who is also working on as a writer on the Torment team, examines the appeal of such an unusual setting "I think the best parts of sci-fi and fantasy revolve around experiencing strange new places and ideas. You can put a spin on elves and goblins, but at the end of the day, they're familiar elements. When you have a setting where you could be having a conversation with a sentient moon or piece of living metal, you don't know where that discussion is going to end up."

Chris Avellone (Lead Designer on Planescape: Torment) – who is working on companions for the game along with writer Patrick Rothfuss – is enthusiastic about the way the game is looking

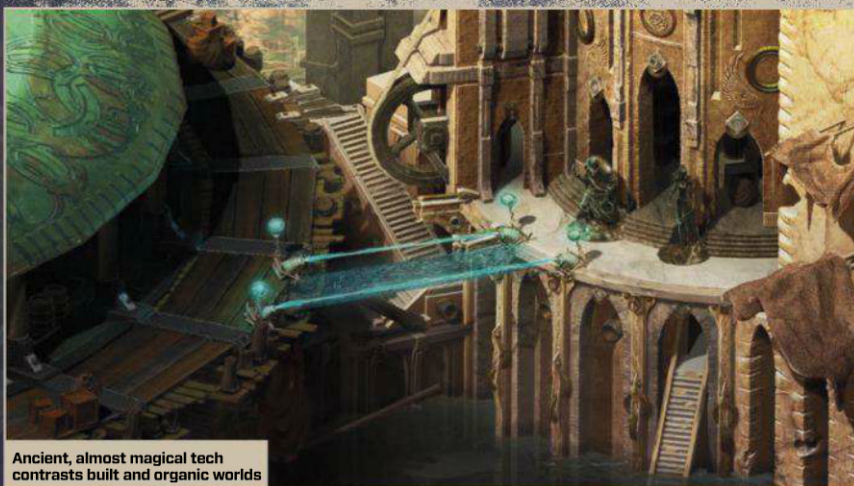




“We needed a rich, almost-literary story that asks serious questions. We needed a world and characters completely different from standard fantasy archetypes”

“Ultimately what I hope to see really play out is where you’re really just playing a person”





Ancient, almost magical tech contrasts built and organic worlds

to set itself apart. "Everything that I've seen from the setting so far, the area design and the theme itself, those feel like a real departure than most roleplaying games. Like one area, the Bloom; it's a living creature, it moves around, it has a community in it, it's a predator... all of that stuff, yeah, that's pretty much Torment. It would be rare to find an RPG that has a location like that. It feels very unconventional but at the same time, that's what makes Torment stand apart.

Rothfuss agrees. "It strikes me as being that they [the team] want to do new things, they want to do better things, but they know what makes the classic RPG work. I think it's going to be strange, but still have a lot of those good, familiar things that we love."

The original Torment was also notable for how the game's narrative effectively interwove with many of the games systems, such as the Nameless One's growth from a mechanical standpoint being driven by his remembering former lives and properly engaging with the people in his party. Kevin Saunders, project lead, points out the team's plans when we ask about the interplay between story and game. "The intent is for them to be quite well connected. Going back to some of the Numenera aspects, as we've said in our vision document and our Kickstarter pitch, our three themes are legacy, abandonment and mystery. And those are all core to the Numenera setting and Monte's philosophy – not abandonment so much, but the other two – with the game rules. So it's starting from a place that's very agreeable to where we want to take it. It's what we tried to do with the spirit eating in Mask of the Betrayer [Neverwinter Nights 2's expansion pack, which Saunders previously worked on], to have a narrative component that had gameplay effects. And here we can, from scratch, approach things from that perspective."

Saunders continues, "Since you're playing this one character, and we don't have all the rule systems in place. We can start with the exceptions for this one character, instead of having 'you're a fighter, so that means all these things'; we can implement our classes and our abilities in the way we want them to be for this one person and his or her companions."

One such connection between gameplay and narrative is the notion of the Tides, which represent a shift away from the kind of binary 'morality plays' of most RPGs. The Tides are an element created specifically for Torment, and are both a tool for defining the morality and guiding lights of individuals, as well as a palpable force in the world. Rather than staid notions of good and evil, the five Tides are overarching ideologies not clearly articulated in words. For instance, the indigo Tide not only represents justice but also a desire for fairness or, even, an end-justifies-the-means mentality.

We asked Avellone and Rothfuss how the Tides play into the companion work they are doing. Avellone points out the extra flexibility it provides him in writing characters.

"When you have a game system, like a dark and light side," he starts, referencing the morality systems of the Star Wars RPGs that are echoed throughout so many others, "that forces you to put a character in a compartment – how would a light side character deal with this guy? How would a dark side character deal with this guy? But when you have the Tides in the Torment game, suddenly that provides us a much wider spectrum of opportunity and I feel from a writer standpoint that gives you a lot more freedom to explore much different paths for the character, and what kind of choices you can make, and that's quite liberating overall."

Rothfuss also emphasised that it allows the team to create much more interesting and realistic takes on concepts such as hero-dom. "The basics, if you follow that other mechanism," he begins, "is that there's really only way to be a hero. It's like, you can't be snarky to these people even though they sooo deserve it, because I need my light side points so eventually I can get whatever superpower I get at the end. When truthfully, there's a lot of different types of hero: your Dudley-Do-Right hero, you can be a paladin hero, you can be sarcastic hero, you can be hero-slash-antihero, but ultimately what I **hope to see really play out** is where you're **really just playing a person.**"




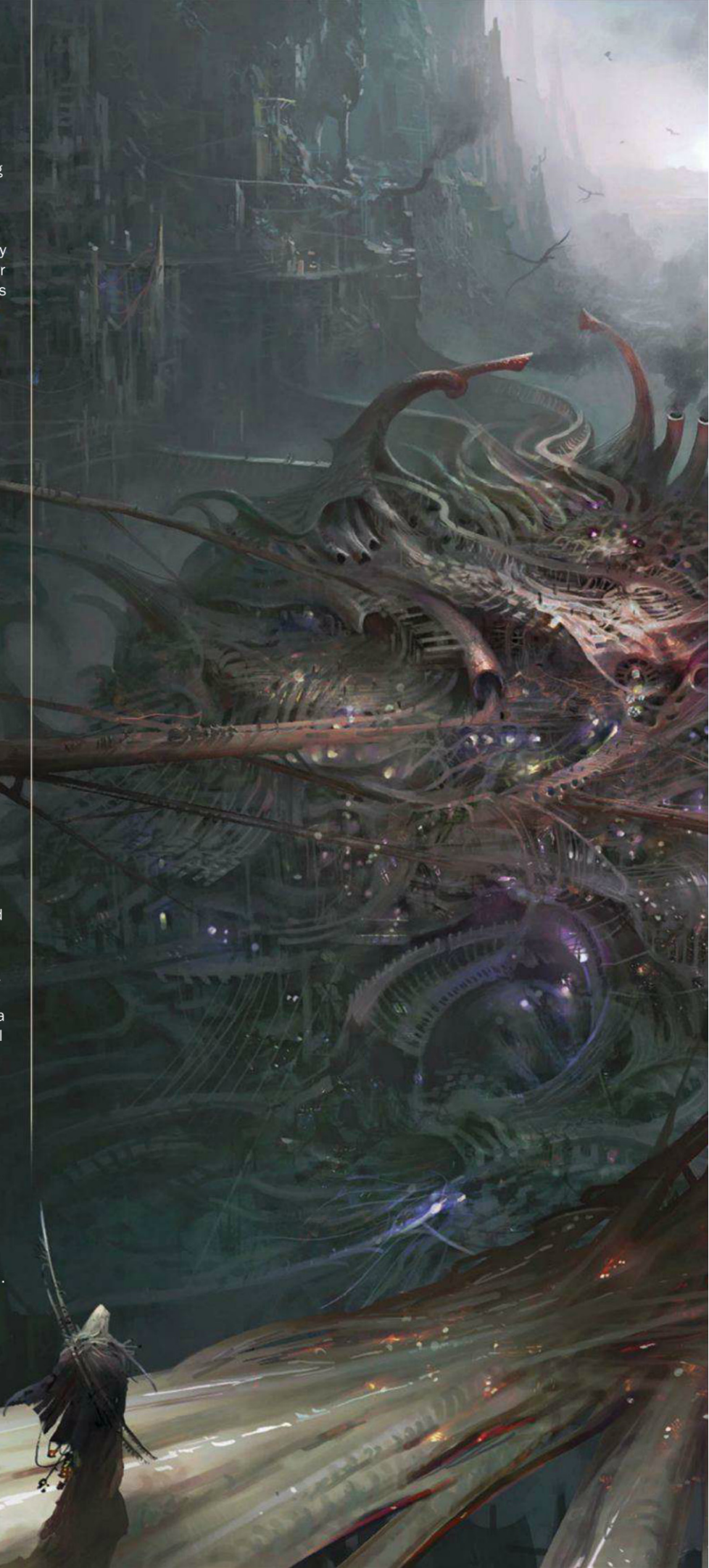
And it's the choices that allow the player to define their experience in this way that are going to form a key part of the game. Brian Fargo, creator of Wasteland and director for Tides of Numenera, has been speaking frequently about the importance of reactivity and Saunders is only too happy to reinforce this as a primary focus for this game. "It definitely is one of our main points for the game," he points out, "and it's why the Tides were something that we had fleshed out pretty well before the Kickstarter, because they will be one of our main vehicles for reactivity, both in dialogue and the things you do."

"One of the main things we're not going to be striving so much for, is an extremely long experience," he continues, "For a single playthrough we're not going to be trying for 80 to 100 hours of gameplay. We won't be as worried about having things that are cut off for certain playthroughs. You won't be able to go everywhere and do everything in a single game. Instead, you'll cut some things off, and get to experience other things, and you'll want to play again and it will be quite different."

We also asked Saunders about how the Numenera setting has influenced the game's systems. "From a rules perspective, the system is much more friendly to adaptation to a computer RPG than 2nd Edition Dungeons and Dragons," he explains, "I think that's a combination of Monte's experience over time, and also his approach with Numenera is to be more streamlined from a design perspective. That's great because it's easier to make things more complicated as we need to, in order to make it a good game."

When pressed, he expands further, "We're not trying so much to make a Numenera tabletop experience, were trying to make a good game. So with that system and the foundation it provides us with, we have a good starting place, and then we have flexibility to make what changes we need to."

Slated for a 2015 release, Tides of Numenera is a project that is still in its infancy, there's still issues such as combat which have yet to be resolved and the team has been quite candid in pointing out how many concepts and ideas are still in development. Despite their caveats, there's little doubt after speaking to them that the team have a very strong idea of the game they want to create. This is a game being made for the people who backed the Kickstarter project in the first place. The team aren't trying to make a super accessible title that can cross all markets, instead they simply want to satisfy the fans that had faith in them in the first place. Even at this early stage, PCPP is confident they are well on their way to doing just this. 





FRATERNISING WITH FARGO

We speak to Executive Producer and CEO of inXile **Brian Fargo** about the origins of *Tides of Numenera*, choice and consequence, and Kickstarter

PCPP: Why *Torment* and why now?

Fargo: We have this wonderful and unique opportunity to bring back a certain style of RPG that we know and love; games that would have never been financed under traditional means. So as I was in the middle of production of *Wasteland 2* I needed to think about what the team might roll onto after the game was complete and here I was already working with both [Creative Lead] Colin McComb and Chris Avellone. I always appreciated how unique *Torment* was, and I knew that much of its soul game emanated from these guys, and it seemed like a perfect RPG to follow up with after *Wasteland 2*.

How much influence did the success of *Wasteland 2*'s Kickstarter have in the decision to bring back yet another revered game series?

Kickstarter is a perfect place for games that would not have seen the day of light otherwise. There were truly few options for mid-size developers like myself to create the style of RPG we are creating with *Wasteland 2* and *Torment: Tides of Numenera*. I had always felt there was demand and I was beating on that drum for a decade telling publishers but I got nowhere in these discussions. The real tricky part with this campaign was kicking it off before *Wasteland 2* was complete, but there is a great deal of production logic and timing that I wanted to take advantage of. All I could do was state my case and keep my fingers crossed that the RPG fans would understand the logic of it all. Thankfully they did, and in bigger ways than I imagined.

You've made a point of placing player choice and consequence at the center of both *Wasteland 2* and this project. Why do you feel this is so important within the RPG genre, and so important to *Torment* in particular?

If you read the comments from RPG players there is a constant recurring theme of wanting the world to materially change based upon a

reasonable set of actions that the players make. Obviously there are an infinite number of actions that can be taken, but we need to try to hone in on the most obvious and interesting ones, and react intelligently to the choices we do give the player - otherwise the world sense gets lost. I think cause and effect is critical in all games and not just RPGs. You can even look to movies in which you expect the characters to behave and react reasonable in situations. How many times have you been frustrated watching a film when the character is not reacting or speaking to some obvious thing in the film? When characters don't act natural or reasonable then a frustration sets in.

The original *Torment* can be said to have left quite a legacy to CRPG gamers. What do you

I have been a big proponent of the crowdfunding style of development as you know, but it is important to understand which parts lie with our judgment and personal vision. There are certain decisions we need to make as developers/creators that we know are best for the game, such as choosing which engine to use and which writers to bring aboard. We look to brilliant minds of Colin McComb, Chris Avellone, Patrick Rothfuss, Monte Cook etc. to do what they do best. Now, once we start to bring the elements together, we look to the crowd for feedback on whether we are accomplishing the things we set out to do. We need to hone in on the gameplay by receiving constant feedback and the earlier the better. If a large percentage of the players are not picking up on a key concept, or are reacting

"My hope for *Torment* is that it will be considered the best-written RPG of its kind"

hope *Tides of Numenera* is remembered for? What do you hope its legacy to be?

We certainly have no lack of pressure to live up to the legacy on *Torment* but I am quite confident that the talent of the writing and the passion of the team will satisfy the players. *Torment* was an RPG for connoisseurs and was wildly imaginative and so well written. My hope for the legacy of this *Torment* is that it will be considered the best-written RPG of its kind. We will take the last decade's knowledge of reactivity, mix it with a superstar writing team and give the game enough time in production to make it shine. There will not be a soul that plays *Torment* and thinks "I've seen this all before."

Being a crowdfunded title, how do you see the role of the backers and fan community-at-large in the ongoing development of this title?

negatively to something, then we need to look at it. Crowdfunding forces companies to respect this process.

What do you perceive as the main challenges in bringing what some might consider an 'old school' mentality to a game that will be released in an environment currently dominated by the *Mass Effects*, and post-*Morrowind Elder Scrolls* of the world?

I only see opportunity, not challenge, in regards to what we are going to bring to the table. I can't see how greater cause and effect can be seen in anything but a positive light. Certainly those games shine in the audio and cinematic departments but there can be a tradeoff for such things. But regardless of that debate, our backers know exactly the kind of game we are making for them and those are the folks I must please.



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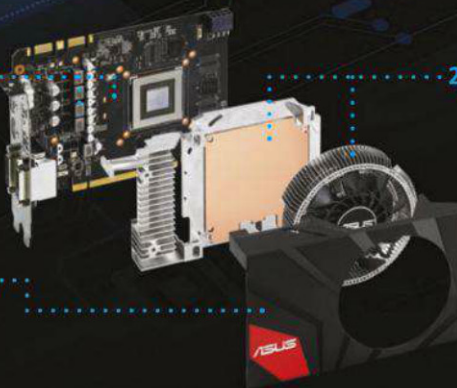


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PIVOTAL POINTS

The Oculus Rift represents a new formative moment in PC gaming: the VR revolution

There are a few moments in gaming that I'll never forget. Firing up Microsoft Flight Simulator 2.0 on my dad's IBM compatible PC. Seeing smooth framerates in Action Quake with my new 3dfx Voodoo card. Shooting my first guy with a railgun in Quake II, connected via a 56k modem. And now I can add starting the Team Fortress 2 tutorial while wearing the Oculus Rift to that list of personal, pivotal gaming moments.

All of those moments have been my first experiences with key technologies, each of which went on to revolutionise PC gaming, and I have no doubt that Rift will do the same. While the developer's kit is nowhere near game-ready, with a horribly low resolution, the immersion I felt while wearing it is hard to put into words. Game critics often use the term immersion while writing about certain games, but it's taken on an entirely new meaning since I stood in that empty Team Fortress warehouse, with my usually slim, attractive physique replaced by the lumbering weight of a Heavy and Sacha. I'll never use the word to describe a 2D game again, as they simply aren't immersive compared to VR.

I hope my extended hands-on conveys how game-changing this technology is. Personally, I haven't been as excited about a piece of gaming technology since the first 3D graphics accelerators. With a consumer launch date pencilled in for a late 2014 date, the next 16 months are going to be a very long wait indeed.

Bennett Ring
Tech Editor

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- Turtle Beach Z Seven
- 70 Menagerie



MY VISION IS **AUGMENTED**

VIRTUAL REALITY IS HERE: HANDS (AND EYES) ON
WITH THE **OCULUS RIFT** VR HEADSET



*FINAL CONCEPT RENDER

Virtual Reality is the Holy Grail of gaming, plucking players from behind their 2D windows and placing them directly into their favourite gaming worlds. Unfortunately, it's been of reach for those of us without multi-million dollar military budgets. While companies like Sony have toyed with consumer versions of the tech, releasing mediocre products like the HMZT2 with a \$1000 price tag, it's taken a 20-year-old VR engineer called Palmer Luckey to finally realise the VR dream. He's the technical genius behind the Oculus Rift, a \$300 VR headset for the PC that promises to reshape the way we play games. **BENNETT RING** managed to get the first Rift to land in Australia, and after a week of testing he's convinced the promise is destined to become a reality in the next few years.

Palmer Luckey is what one might call a virtual reality aficionado. As well as studying VR at the University of Southern California, Luckey spent years building up his private collection of VR Head Mounted Displays (HMD), widely regarded as the largest in the world. His experience led him to the conclusion that the most promising HMD type used a single flat screen, divided by software into two separate halves. It's then viewed through twin lenses placed very close to the eye, stretching the image to deliver a huge field of view. The beauty of this approach was twofold – it delivered the best damned VR experience outside of a sci-fi novel, and it could be built using mobile phone components for just a few hundred dollars.

To get his dream of mass-produced VR off the ground, Luckey launched the Oculus Rift Kickstarter campaign with a target of US\$250,000. Each pledger would receive a developer's prototype for just \$300. The campaign blew away the target, ending at \$2.4 million, which was matched by another US\$2.5 million from investors. This is the kit I've spent the entire issue strapped into, so let's take a look at what Oculus developer kit has delivered at such an insanely low price.

THE HARDWARE

The developer kit comes with a HMD, control box, cables, and three sets of lenses. Everything is built from heavy plastic, but it doesn't feel cheap or inferior, rather that it's



PERCEPTION TEST

Oculus supplies two demos for use with the Rift, but it is possible to get a handful of games working. The Vireio Perception software is an open-source 3D driver that hooks into games to enable head tracking and Rift 3D. It was first created by a chap by the name of CyberReality, but he was quickly snapped up by Oculus to be their community manager. Thankfully a bunch of other developers have picked up where CyberReality left off, refining the driver set continually. So I owe a huge thanks to those who have donated their time and intellect to create the Vireio drivers.

been built with a specific price point in mind. The headset looks like a pair of ski goggles with a large black plate on the front, and it's hardwired to the control box via a two metre cable. The control box connects to the PC via HDMI or DVI, as well as USB. A small power pack delivers juice to the control box, which also contains basic contrast and brightness controls.

Weighing just 370 grams, when the straps

are adjusted properly the HMD is surprisingly lightweight, even for extended periods of time. The screen can be moved forwards and backwards by about an inch, allowing a perfect fit even if you're wearing glasses. I'm of the four-eyed persuasion, which is where the included three sets of lenses come in handy. The default lens is for those lucky enough to have 20/20 vision, with the remaining kits providing dioptric correction for the vision impaired. I used the last set without glasses and it was nice and clear, but using the default kit with contact lenses is definitely the way to go.

The lenses look onto a seven inch, 60Hz, 1280 x 800 LCD screen, which delivers 640 x 800 pixels to each eye. Tucked away behind the screen is a proprietary 1000Hz Adjacent Reality Tracker, which provides 3 degrees of freedom motion tracking, hence the need for a USB cable from the control box to your PC. Plugging it into the PC, I was amazed to see that absolutely no drivers were required. Connecting to my gaming box (i7 3770K at 4.5GHz,

dual Gigabyte GTX 670 OC videocards and 8GB DDR3 2100) was achieved via DVI, allowing me to mirror the image to my gaming den's projector. This is very important, as the low resolution means you can't read most in-game text, so you'll need a second monitor mirroring the image. With the Rift set up it was time to leave the mundane backyard of my Sydney home and set foot in some of PC gaming's most exciting virtual worlds.

BLURGARGAHURG

VISUALLY INDUCED MOTION SICKNESS AND THE OCULUS RIFT, WITH DR. ANTHONY FORDHAM

Yep, the Oculus Rift will make you green. One in three chance. Stats man, nothing we can do. We've known about "simulation sickness" pretty much since the days of Wolfenstein 3D, but it's interesting to know WHY this happens. It's different to carsickness, which is caused by your vestibular system (fluid-filled tubes in your ears) detecting movement, but your eyes getting confused by the stationary dash in front of you. Inside the Oculus Rift, the reverse is true: your eyes see movement, but your vestibular system can't detect it – or at least, some of it.

See, moving your head to look around DOES stimulate your vestibular system properly, so standing in one spot and looking probably won't make you barf. The problem is when you start sliding around the world with the WASD keys. Your otoliths (two in each ear) don't detect any linear movement, but

your vision does, and it's completely covered by the head gear. Next stop: spewville. For me, it took about 90 seconds to start experiencing vague discomfort, which built over the next five minutes until I had to take a break.



Why do we respond to VR with nausea? Well, your area postrema, responsible for managing vomiting, takes note of the mismatch between your eyes and your vestibular system, and decides this means you're hallucinating. What causes hallucination of this type? Neurotoxins. Your brain thinks you're poisoned, so it induces mass vomiting. Thanks a lot, brain.

This motion sickness issue could be a real problem for systems like the Oculus Rift. I don't get simulation sickness, even on a 27" monitor, but inside this I became ill almost immediately. Could you get used to it, train your brain? Here's hoping.



*ACTUAL BETA UNIT

TEAM FUN-TEST 2

The first game off the rack was Team Fortress 2, as Valve has built a VR mode specifically for the Rift. There's no faffing about with special drivers or lowering graphics settings – I just turn the Rift on, attach it to my face, and fire up TF2. My first thoughts were how comfortable the goggles are; even comfier than ski goggles. Heading into TF2's training mode, I look around to see that I'm standing in a small room with a stack of crates in the corner and a grill overhead. I can look down and see my body. Looking over my avatar's shoulder I can see the door behind me. When I say look, I mean physically look with my head and neck, not the mouse pointer. There are no problems with latency – as soon as I turn my head, the onscreen image matches perfectly what I expect to see. I'm amazed at how much of my field of view is taken up – I can barely see a small black frame at the very edge of my vision, but for the most part all I can see is the game world. It's totally different to other VR HMDs like Sony's HMZT1, which feel like looking at a projector screen hanging in the distance. Rift is no virtual movie theatre; I am there, in the room. It's a plain and simple room, yet it's a pivotal gaming moment that I'll never forget, just like the first time I saw Flight Simulator on an X86 or joined my first online game in Quake II.

Unfortunately, the huge area displayed before my eyes reveals the Rift's biggest

problem: 640 x 800 pixels per eye is horribly low. Each pixel is giant and mounted in a lattice of interlaced gridlines, as if I'm looking at the screen through flywire (an anomaly called the screen door effect). It's so blocky that I can't read any in-game text, most of which is way off centre anyway. Antialiasing does little to fix the problem. Heading into a match, the low resolution makes it quite hard to resolve far off objects, so I stick with the close-range Pyro class. Unleashing his flamethrower spews forth a beautiful display of particles, with much more volume than I've ever appreciated in 2D. The 3D is utterly perfect; as close to as good as the real world is possible. With each eye being fed a unique view of the 3D space, there's absolutely no issues with crosstalk (aka ghosting) – a problem suffered by 3D TVs and projectors where objects have weird halos. Despite the resolution woes, I'm continually impressed by the feeling of "being there", of inhabiting this space.

The controls work perfectly; my head controls where I look, while the mouse is used to control where my weapon's crosshair is. My view is totally independent of where my body is facing – if I look left with my head, but press W to walk forwards, I walk in the direction my gun is facing, not my head. To turn my body I need to use the mouse to hit the edge of an invisible bounding box on

screen, the same way Wii shooters move when using the Wii remote, but with the Rift it actually works well. Soon, I'm running around the level with ease, in awe at the sense of vertigo I feel when standing at the top of a flight of stairs. Jumping off high edges causes my rectum to pucker up far more than it does when making flying leaps in 2D. I'm having a ball, but it's not quite good enough to say it's playable for long periods of time due to the resolution problems. After being spoiled by HD for several years, it's very hard to go back to what looks like 640 x 480, even if the VR effect is stunning.

RIFT USABILITY RATING: 6/10

DEAR ESTHVR

I'm a huge fan of the virtual spaces in Dear Esther, so it was disappointing to see just how poor they look while using the Rift. There's no native support for the Rift, so I had to use the Vireio driver, which means my head controls the view and direction in the same way a mouse would. This can make guiding my virtual body a little tricky – if I look far right and want to move that way, I have to use the mouse to spin even further in that direction, then re-center my view. It's tricky, but soon becomes fairly comfortable. What isn't comfortable is the way the incredible detail of the game's landscape becomes one big blurry



Don't worry: it doesn't watch you back

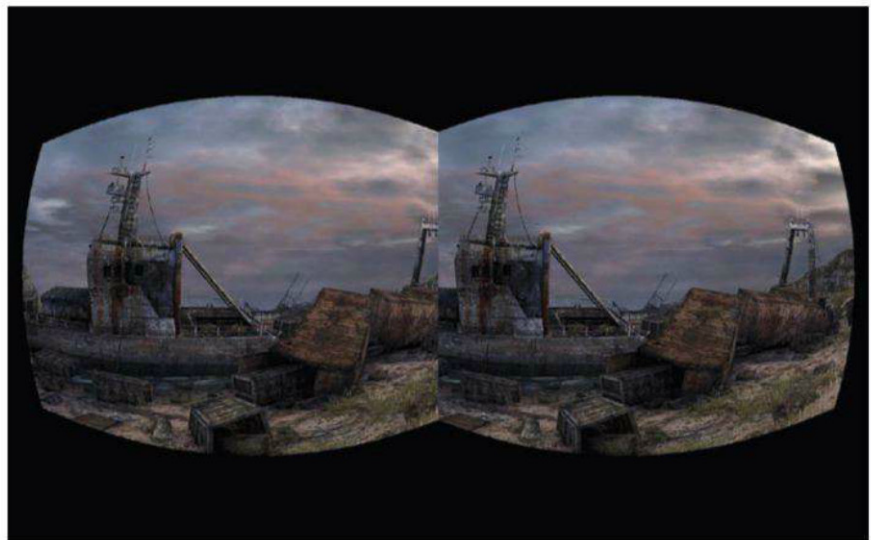
mess through the Rift's low resolution. Only the largest, plainest features of the landscape look good, such as the ship wreck and radio tower. The beautiful texture work is lost in the screen door effect, as is the intricate foliage. Overall a disappointing experience.

RIFT USABILITY RATING: 4/10

SKYVRIM

Skrim was probably the most anticipated of all the Vireio supported games, as wandering its mountain paths is an exploratory joy that few games can match. Getting it to work is a little trickier than most games though, as it requires editing of the config. This rigmarole is worth it though, as my first steps on the Throat of the World reveal a landscape that soars into the distance. The sense of depth in the view is a little weird though, almost as if the world isn't quite as big as I remember it from playing in 2D. It highlights the issue VR game makers will face – you can't just squeeze several mountains and plains into a few square kilometres, as these features span much larger distances in the real world. Doing so might look fine when viewed through a 2D window, but when you're "really there" something doesn't feel quite right. Despite this, the landscape is still breathtaking, even when viewed through my low resolution filter.

RIFT USABILITY RATING: 7/10



The low resolution in each eye means it's difficult to distinguish detailed, low contrast textures such as those of Dear Esther and Half-Life 2's dystopian future. You're more likely to have success with bright, colourful environments.



Not being funny: you'll actually catch yourself doing this

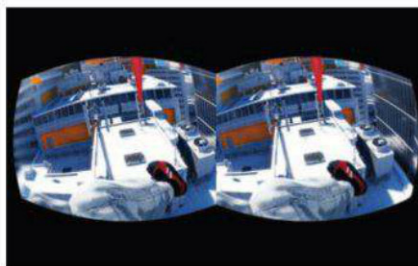
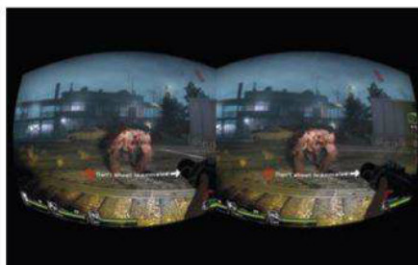


LEFT VR DEAD 2

By now I was amazed that I hadn't felt any nausea whatsoever, even after spending 90 minutes inside the Rift's world. Apparently I'm part of a rare breed, as plenty of other people have posted online about their issues becoming acclimatised to VR, with headaches and nausea commonplace. The solution is to ease yourself into VR 15 minutes at a time, but luckily enough I didn't need to. I was also blown away at the potential of the technology, regardless of the resolution woes. Yet I still hadn't found a game that I'd want to play long-term in the Rift... until I played L4D2.

Wow. The game's reliance upon Valve's aging, blocky Source engine meant that environments didn't have the intricate detail that the Rift can't handle. It was the first game where the resolution wasn't a huge turn-off, but what was most impressive was the scale and depth of every scene. I spent several minutes simply looking at my AI teammates from every angle, marvelling at how there they felt. Walking through the darkened levels, waiting for the next mob of zombies to appear, was a truly scary prospect, equal only to the immense satisfaction of gunning them down, leaving the ground littered with corpses. Walking up to one dead walker I could see a huge, gaping hole in the back of its skull, and I could literally peer down into the hole. It was disturbingly real, what the OFLC would call high impact.

RIFT USABILITY RATING: 8/10



Mirror's Edge use a third-party driver, so it isn't yet perfectly suited for the Rift. Valve has stated games may need to be designed for VR from the ground up.

I'M EXCITED

Rift is here to stay, make no mistake. A second version of the dev kit is due later this year, and there's a very good chance it will have a 1920 x 1080 display, helping to resolve the resolution issue. It might also include six degrees of freedom motion tracking, which means it can detect where in space your head is, not just the direction it's looking.

While the higher resolution sound fantastic, I think the consumer version will need to use a 2560 x 1440 panel to really squash the resolution problem entirely, which will in turn need a rather hefty PC to power it. As such, Rift will probably remain a PC exclusive for quite some time, which in turn will make the PC the only gaming platform worth playing. Trust me, once you've been inside your games you'll realise just how limiting two dimensional monitors are. Even in this early form, Rift endows PC games with a sense of scale and presence that is unparalleled, not to mention breathtaking. With some of the industry's most talented hardware creators hired by Oculus, not to mention immense buzz from developers such as Dice and CCP the consumer debut of Rift in late 2014 looks to be an absolutely ground breaking moment for gaming. [PC](#)

VIRTUAL BOY

A real-life conversation with the mastermind behind virtual reality's return

Palmer Luckey is the VR genius behind the Rift. At just 20 years of age, he's co-founder of one of the most exciting tech startups in the world, Oculus, which looks set to deliver the world's first truly usable consumer VR solution. An incredibly intelligent yet humble young man, we spoke of all things Rift.

PCPP: Your trajectory from university researcher to famous inventor behind an incredibly popular startup has been stratospheric. How are you feeling? Do you still have to pinch yourself to see if this is real?

Palmer: Not anymore. I'm past that point. Now it's just continually working around the clock to try and shift product. But for a while, yeah, there was some of that going on.

When shipping a product compromises always have to be made. If you could have changed one thing about the dev version, what would it be?

I wish we could have used the original screen that I'd found, but there was a supply issue as it was a discontinued screen. I got quotes for 5,000, which is what I thought we'd need, but when I went back asking for 10,000, they couldn't fulfil it. So we had to rapidly redesign the product.

Onto the headset itself, we've been amazed at the speed and accuracy of the 3DOF motion tracking. How much harder will it be to go to a 6DOF solution, and are they far more expensive?

It's not necessarily more expensive, but it is very difficult. It's a much trickier sensor fusion problem. We have multiple PhDs working here now, focusing on that problem, to give us solid positional tracking that can keep up with our current tracking. I'm pretty sure we can get that feeling great though using largely mobile components, though we do have to reach into some custom components.

Now that we know what's powering the PlayStation 4, do you think the next generation of consoles have the horsepower necessary to run a 1080p Rift? Or, do you envisage it as a PC-only peripheral for the immediate future?



"We have multiple PhDs working here now, focusing on that problem, to give us solid positional tracking"

They absolutely do have the horsepower. The main thing is going to be developer support. The second thing is that console manufacturers generally have to license every peripheral. If we want to work on the next Xbox, Microsoft could say "no, we don't want you to" and that would be it. On the other hand, if they decided to allow us to work on the next Xbox, there is no technical reason why it wouldn't work. **PC**



BUILT TO LAST

The first details of ASUS's next-generation Z87 motherboards

ASUS recently flew **BENNETT RING** to Singapore for a 90 minute presentation of its new Z87 based motherboards. Nine hours each way is a long time to spend in a virus-spreading pressurised tube for a mere hour and a half PowerPoint show, but it's an indication of how important this new chipset is to motherboard manufacturers. Built to house Intel's 4th Gen Core processor, aka Haswell, it's rumoured to be the dominant Intel chipset for the next two years. Let's see what ASUS brings to the Z87 table, without spilling any NDA secrets that might trigger Intel's cybernetic ninja death squad.

We'd barely managed to step off the plane before ASUS kicked things off with a look at its channel range: seven mainstream motherboards all built around the Z87 chipset. These are due to ship around June of this year, and obviously all use the new LGA 1150 CPU socket, which means none of your existing CPUs will work. Thanks, Intel! However, your old CPU cooler will fit on the new socket, saving cash if you already own a custom cooler. The Z87 chipset now natively includes six SATA 6 and USB 3.0 ports, but ASUS has increased this to ten on its high-end boards. These premium wallet punchers also include 802.11ac networking.

Haswell apparently brings an entirely new power design to the table, so ASUS had to change its power supply circuitry. This centres on its "dual intelligent processors", which allow for more precise power control, better overclocking, more detailed thermal monitoring and fan control, and finally lower power eco modes. It's hard to say if they'll make much of a difference until we get our hands on a board. More interesting is the Near Field Communication (NFC) device that will ship with certain boards. This allows NFC devices such as smartphones and tablets to act as a remote desktop, as well as enable quick logins and wireless file transfers.

REPUBLIC OF GAMERS

The mainstream does have a couple of boards relevant to PC gamers, but we were most interested in the new range from ASUS's hardcore gaming division, Republic of Gamers (ROG). The range is built around Z87-powered versions of the existing Extreme (high-end overclocking), Formula (ATX premium gaming) and Gene (Micro-ATX premium gaming) products, and the specs are incredible. The Extreme packs an insane ten SATA 6 ports and USB 3.0 ports, while the Formula and Gene drop this to an almost-as-impressive eight. All ship with an 802.11ac combo card that doubles as NGFF mSATA port for cache drives. Bluetooth 4.0 is included in the same module. High-end power components should deliver even better liquid nitrogen overlocks, but one key feature will



"Maybe for Asian people, they saw this as an advantage, not a cheat... Western gamers might think this is a cheat though"

make overclockers sweaty in the groin region – the OC Panel, an external device the size of a large remote that moves all of the hardcore overclocking features off the mainboard and into a convenient centralised package.

New to the ROG range is the Hero series. Priced at just US\$200, it delivers ROG performance without pillaging your wallet. Eight SATA 3 and six USB 3.0 ports provide connectivity, while three full length and twin 1x PCIe slots are roomy enough for an SLI/CrossFire system. Full eight phase power remains intact, the same as the premium boards, and it also includes the new OC header, which can operate with the OC panel.

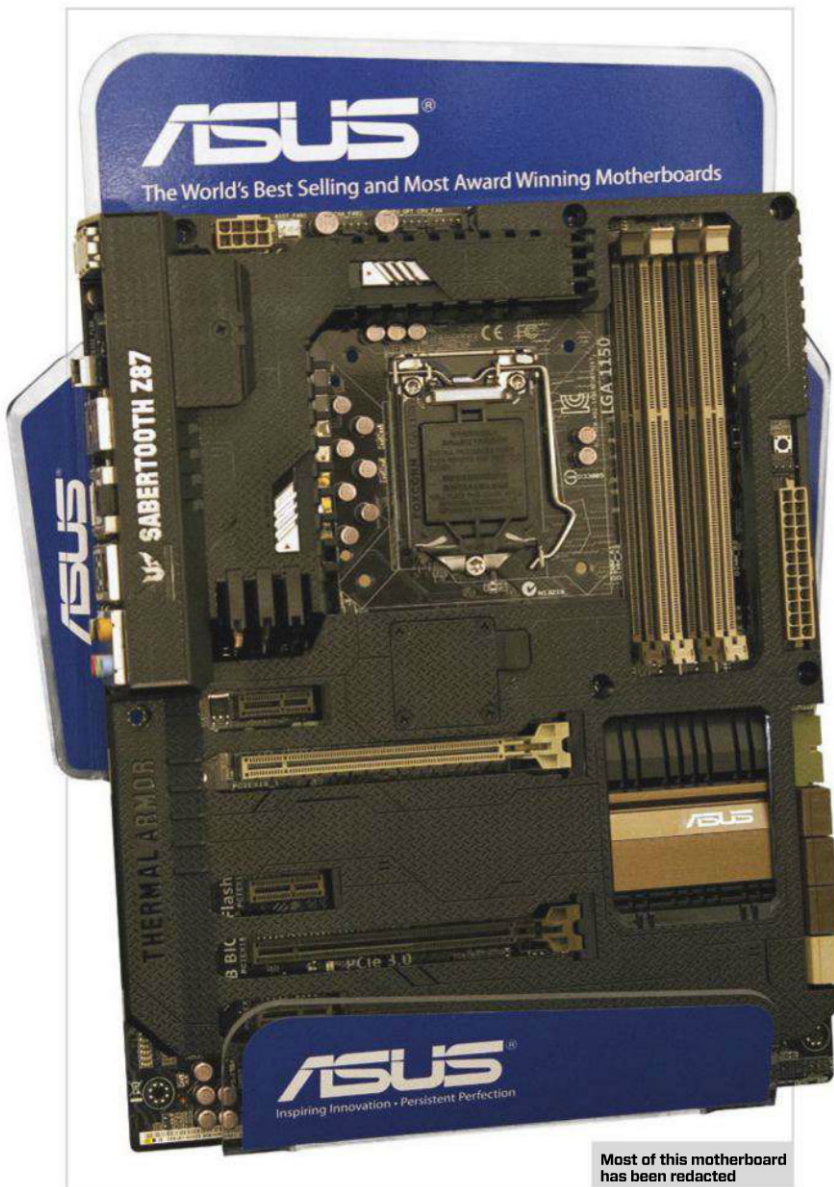
RUH-ROH ROG

The ROG presentation finished with a lengthy presentation on the new software bundle

designed for ROG boards. SSD owners will appreciate the SSD Secure Erase software, which helps bring sluggish old SSDs back up to full speed. Meanwhile ROG RAMDisk delivers an easy to use RAMDisk solution, though considering our recent Bunker tutorial we wonder if ASUS has actually benchmarked PC game performance while using a RAMDisk? But the most controversial feature was saved until last, in the form of the Sonic Radar. ASUS spent a lengthy amount of time demoing this, suggesting it's one of the most important new features of the ROG line. This is simply gobsmacking considering it's basically a cheat.

The software draws a radar overlay into your favourite first-person shooter HUD, and whenever it detects a noise it draws a line to indicate the sound's direction. Can't figure out

MOTHERBOARDS



where that pesky sniper fire is coming from? Just look at Sonic Radar, which will instantly identify that it's coming from precisely 265 degrees. Finding those shuffling footsteps hard to place? Fear not, as Sonic Radar will let you know that they're off to the right.

We were rather shocked when we saw this in action, harking back to the bad old days when custom GPU drivers made walls invisible. We have no doubt that PunkBuster will detect Sonic Radar and ban users, so we asked senior ROG staff member Stanley Fei how ROG could have not realised this.

Mr Fei seemed a little surprised at our reaction to Sonic Radar, but when we pointed out the PunkBuster issue he acknowledged that he'd need to go and discuss it with the higher-ups. Since then, we've had an email about ASUS's actions, stating, "Regarding the Sonic Radar feature, we are having a discussion internally right now. Since we concern the potential problem very much, we would like to have more evaluation at this stage before letting you know what our action would be". When quizzed on how a cheat could be promoted by a brand that is meant to represent the core gamer, Mr Fei suggested that it might be a problem of cultural perspective. "Maybe for Asian people, they saw this as another advantage, not a cheat. Now that I have spoken to you, I agree with you that Western gamers might think this is a cheat though."

It's strange to think that such a problematic feature could get through the many stages of product development, but it highlights the issue motherboard manufacturers face – how do they differentiate their motherboards, which are based on the exact same chipset used by their competitors? As we've seen with ASUS's new range, the focus is shifting towards the software bundled with the board, but in the case of Sonic Radar the urge to differentiate has come at the cost of common sense. Hopefully the Sonic Radar will get knocked on the head, so when it comes time to review ASUS's new range we'll be able to focus on the many things the company is doing right with its new Z87 range. [PC](#)



1. Propellerhead Balance

Price: \$450 • Propellerhead
www.propellerheads.se

If you've ever tried recording and mixing music at home, you'll know the task is not as straightforward as it should be. There are connectors, amps, pre-amps, line quality, sound card quality, and a million other things to worry about. The Propellerhead Balance tries to make it simple by offering an all in one hardware/software package.

POWERED UP: Simple installation, intuitive hardware interface, dual channel input, and compatibility with your favourite mixing software. An entirely professional solution.

PLAYED OUT: It's pricey outlay, but then quality audio gear always is.

2. MusicMachine

Price: \$TBA • MB&F
mbandf.com

Looking like a cross between an X-Wing and the Starship Enterprise, this futuristic contraption is actually a music box. Think along the lines of those old-timey jewellery boxes with the spinning ballerina.

POWERED UP: The left cylinder appropriately plays the Star Wars theme, the Imperial March, and the original series Star Trek theme, while the right plays Another Brick in the Wall, Smoke on the Water, and Imagine. Only 66 are being made. 33 white, 33 black.

PLAYED OUT: The space-related musical themes are understandable given the look of the musicmachine; the other tunes not so much.

3. Philips DesignLine

Price: \$4500 • Philips
www.philips.com.au

The bezel is the bane of modern display devices. The black border encroaches on the clean image of a 1080p display. It's primitive, and the Philips DesignLine takes a bold step away from the bezel.

POWERED UP: An almost floating, seamless design with one of the most unobtrusive bezels around. Ambilight technology creates dynamic ambient lighting that matches the onscreen action.

PLAYED OUT: The unique stand design shows it's created for leaning against a wall more than mounting on one. A potential hazard with children and other crazy pets.

4. Nexersys

Price: \$3000+ • Nexersys
nexersys.com

Tired of the laggy response and limited features of Wii Sports Boxing? Perhaps it's time to upgrade the home gym with one of these.

POWERED UP: A built in trainer means no more having to motivate yourself. On board history and fitness tracking, interactive training programs, with over 100 instructional videos covering technique and routines.

PLAYED OUT: Not a replacement for genuine martial arts training, this is a pricey home-gym. This desperately wants integration with fighting games – Street Fighter, Mortal Kombat, Fight Night, Zeno Clash II... Bad Dudes.

5. F1 Racing Simulator

Price: \$135,000 • Costco
www.costco.co.uk

F1 sim lovers rejoice! Or maybe cry! We don't know! This thing is ridiculously expensive! If you really must have a super-realistic F1 simulator, this is probably your best bet short of buying an actual F1 car. **POWERED UP:** Full-size F1 replica with carbon fibre detailing all over of the place. Intel i7 based PC, 5.1 speakers, 3x23" TFT monitors. Price includes someone coming out and setting it up, as well as providing some training.

PLAYED OUT: Costco UK. Have fun convincing them to send it out here. You could easily buy yourself a sports car outright and have cash left over for track time instead.



01



02



04



03



05



MYPC

ETHAN AGE 15 | THEBARTON, SOUTH AUSTRALIA

This month's MY PC brought to you by



FOUR MOST IMPRESSIVE FEATURES:

1. Intel Pentium D 930 @3.0Ghz
2. 4GB of DDR2 RAM @800Mhz
3. HIS IceQ HD 4670 512MB
4. Seagate 5200rpm 256Gb Hard Drive,

LAST UPGRADE: I upgraded from an ATI X300 to the HD 4670 4 years ago. Since then, I have been able to play Counter Strike: Source without dying due to lag

DREAM UPGRADE: Either a new, spacious hard drive, or a complete mobo/CPU/RAM upgrade, which is really, really, overdue.

FAVOURITE FEATURE: My 4670. This computer was a hand-me-down, and when I managed to afford a new graphics card, (which back then, wasn't cheap), it turned from a laggy work PC, in my eyes, to a gaming beast.

WHY SO SPECIAL?: Due to the slow parts inside, it meant that I could only run older games, which spawned my love for the 90s, and the older side-scrolling genre of games, in comparison to all the shooters of today.

ETHAN WINS!

An FSP Aurum CM 750 PSU! With a power efficiency > 90%, The Aurum Series is 80PLUS Gold certified and provides ultimate performance and highest protection that today's cutting-edge PC components demand.



WINNAR!

1. This wallpaper helps Ethan remember that Shodan is always watching. Always.
2. We call these two cans a heavy lunch.
3. Notice the fine coat of dust on the N64, a feature commonly found on Nintendo devices owned by PC gamers.
4. Wow, Game and Watch. Now that takes us back - Ethan, those games are probably older than you.
5. Notice the extremely efficient method of cooling reverse engineered to remove extraneous thermal emissions?

WANT FREE STUFF?

Send your MyPC entry today to mypc@pcpowerplay.com.au. Include the four most impressive elements of its hardware, your last upgrade, your dream upgrade, your favourite feature and what you think makes your PC special. Make sure to include your name, age and location. And last but not least, attach a 5MP or bigger image of your PC! No camera phone shots, and make sure it's in focus!

AMD Radeon HD 7990

Look beyond the benchmarks

PRICE \$1,199
www.amd.com



The art of GPU benchmarking has been turned on its head over the last six months, and it's all due to a fault with AMD's drivers. It started when PC gamers noticed micro-stutters while gaming with AMD, and it seemed to get worse as AMD's performance increased with the release of their powerful Never Settle drivers. After much examination by GPU enthusiasts, it turns out that AMD's GPUs are having issues with the time it takes to create individual frames. While most of them are spat out at the speed of light, every now and then a rogue frame would block up the pipeline, taking much longer to render and leading to an annoying stutter. The problem is even worse when it comes to dual GPUs, which leaves AMD's new dual-GPU product, the Radeon HD 7990, in a sticky situation.

Powered by twin Radeon HD 7970 GPUs, for all intents and purposes this dual slot card is two standalone Radeon HD 7970 graphics cards running in CrossFire, wedged onto a single PCB. The only change is a very slight drop in frequency, with the twin GPUs maxing out at 1GHz, a miniscule drop from the 1050MHz of its single-GPU sister. All 6GB of memory is included, as well as every transistor and feature. It's impressive engineering to say the least, and the 12-inch card is an imposing sight. Interestingly, AMD has taken its sweet time to release the HD 7990, with both ASUS and PowerColor coming up

with their own versions several months prior. However, AMD's variant runs much cooler, with a TDP of just 375W, well below the scorching 750W TDP of the PowerColor version. AMD achieves this dramatic drop by hand-selecting the very best 7970 GPUs from its factory line – a luxury the other companies can't match.

AMD supplied two sets of drivers for testing the 7990; the Catalyst 13.5 beta 2 for performance measurement, along with a special set aimed at stopping the stutter, for experiential measurement. Unfortunately, we can't review like this, as we have to use the drivers that will be publically available – the 13.5 set. When benchmarked against the NVIDIA GeForce GTX 690, NVIDIA's dual-GPU behemoth, the 7990 had a slight edge. However, when we played games with the 7990 the stutter was impossible to ignore, to the point that we'd recommend steering clear of it.

Thankfully, the special drivers definitely improved the situation, but it's likely they'll lower the performance below that of the GTX 690, in which case NVIDIA still wins anyway. Besides, AMD has said it'll be several months before these stutter fixes make it out to the public. It's going to take some software magic to deliver 7990 drivers that solve the stuttering while maintaining the performance lead; until then, the GTX 690 gets our nod for those looking for a dual-GPU graphics card. **BENNETT RING**

BENCHMARKS

Sleeping Dogs 2560 x 1440, Max quality

Radeon HD 7990 47

GeForce GTX 690 44

Battlefield 3, 2560 x 1440, Max quality

Radeon HD 7990 81

GeForce GTX 690 84

Crysis 3, 2560 x 1440, Max quality

Radeon HD 7990 62

GeForce GTX 690 71

Hitman Absolution 2560 x 1440, Max quality

Radeon HD 7990 86

GeForce GTX 690 81

- Very quiet
- Excellent performance
- Amazing game bundle

- St-stuttering
- Slower than 2 Radeon HD 7970s
- Super expensive

VERDICT AMD's hardware is up to snuff, but it'll need drivers to match for the 7990 to be worth considering.

7

A cinematic illustration of a man with a beard and short brown hair, sitting in a bathtub. He has a cybernetic right arm and is holding a lit cigarette in it. His left arm is also cybernetic and holds a glass of amber liquid. He is wearing a white towel around his waist. In the foreground, a large handgun lies on the edge of the tub. To the right, there is a bottle of Jack Daniel's whiskey, a pack of cigarettes, and another handgun. The background shows a city skyline through a window, with smoke or steam rising from the water. The overall tone is gritty and noir.

I never asked to like this.

STORAGE

OCZ Vertex 3.20 120GB

Memory really does matter


PRICE \$120
www.ocz.com

An SSD is really just a big slab of memory connected to a small controller chip, all tucked away in a neat metallic shell, so it's no surprise that the type of memory used can be the difference between a hero and a zero of a drive. The OCZ Vertex 3.20 is a refreshed version of its very popular Vertex 3 drives, with a very slight difference in the type of memory. As big fans of OCZ's speed demons, we were very keen to see what kind of performance difference would result from a minor memory change.

The original Vertex 3 used 25nm NAND memory, built by IMFT, the joint venture between Intel and Micron responsible for some of the better NAND memory on the market. The new model replaces this with 20nm NAND made by the same company, which is cheaper to make but comes at the cost of lifespan, dropping from 5000 write/erase cycles

to 3000 – a significant decrease.

We tested the memory in our new testbench, using Gigabyte's Z77X-UD3H, an i5 3570K CPU, and AMD Radeon HD 7970. We used ATTO Disk Benchmark due to page size limitations, and discovered that the 3.20 version is just a couple of percent slower than the Vertex 3; not too bad, considering it'll sell for a much cheaper price. It was extremely fast compared to most other drives on the market, at around 12% faster than the blistering Samsung 840 Pro in real-world file copy transfers. However, it didn't fare quite so well in smaller file copies, where the ageing SandForce SF-2281 controller is starting to struggle.

If you need a drive that can handle bigger file copies, the Vertex 3.20 has you covered. However, if you're looking for a new home for your OS, go for the Samsung 840. **BENNETT RING** 



- Solid performance
- Excellent price
- Solid 3 year warranty

- Price is a little high
- Average I/O performance

VERDICT It might not live up to the Vertex reputation, but it's still a decent performer.

7

CASE

Thermaltake Urban S41

Plastic Fantastic

PRICE \$148
www.thermaltake.com.au


When you cram everything but the kitchen sink into a case for less than \$150, something has got to give. Thermaltake has done just that with the flagship Urban S41, but thankfully the compromises aren't deal-breaking.

This is one of the few cases that uses acoustic dampening material to deaden fan noise, but the coverage is slightly strange. One side has nice, thick material about 10mm deep, while the other is just 2mm deep. Meanwhile, the top has no soundproof material, but the front door is packed with it. It sure is weird, but at least it'll block part of your fan noise.

The external design initially looks impressive, with a plain black finish favouring a simplistic, subtle look. There's even a top mounted docking bay and fan controller, both welcome inclusions. However, the top and front are made from black plastic,

which looks and feels a little cheap compared to the all-steel beasts that usually inhabit this price range. Thankfully, the sides, rear and front door are metal, but they don't gel well aesthetically with the plastic that surround it.

Looking inside reveals all the usual suspects; a CPU cutout for heatsink removal, room for a 240mm radiator and space for lengthy graphics cards. We're not sure if AMD's gargantuan HD 7990 will fit, though, as the drive bays aren't removable.

The Urban S41 includes all the bells and whistles, but it's come at the cost of construction. Specifically, a huge portion of the external face is built from plastic rather than metal. That's fine if you don't mind the look and won't be moving it around, but it would have been perfect if an all-metal design was used instead. **BENNETT RING** 



- Fan controller
- External drive port
- Silencing material

- Plastic construction
- Uneven coverage of silencing material

VERDICT If only Thermaltake could have pulled off an all-metal cage for this price, it would have been perfect.

8

DISPLAY

BenQ XL2720

Big screen, bigger refresh rate

PRICE \$599
www.benq.com

The BenQ XL2420T is our favourite 24" gaming monitor, with a razor sharp 120Hz refresh rate combined with special gaming colour/contrast profiles to deliver a display that will truly improve your frag count. BenQ has taken everything we love about the XL2420T and shoved it into a huge 27 inch panel, yet the price is only \$100 more. What gives?

Resolution, that's what. Most 27" displays run at 2560 x 1440, but the XL2720 is limited to just 1920 x 1080. However, unlike other HD behemoths, the pixel structure is pleasantly hard to notice on this screen. It's obviously not as sharp as the 2560 displays, but it's the nicest 1080p 27 inch we've tested.

That's good news, as it also includes the raft of features that make its 24" predecessor so great, starting with a blinding 120Hz refresh

rate, perfect for 3D. There's also the dedicated FPS mode, which makes it easier to see into dark areas, but comes at the expense of contrast performance. Switching the monitor over to sRGB mode revealed a much more pleasing display, though it still struggled with overblown whites. The external profile changing box is included, likewise BenQ's brilliant adjustable monitor stand.

Our only concern is the price – it's possible to buy 2560 x 1440 27 inchers for just a little more. However, they won't run at 120Hz, so the question becomes one of frame rates versus resolution. Do you prefer to run your games in HD at 120fps, or at 2560 x 1440 at a mere 60fps? Only you can answer that question, but if you choose the former the BenQ XL2720 is the best option available.

BENNETT RING



- 120Hz refresh rate
- Excellent pixel structure
- Great image quality

- Expensive for HD
- Overblown whites

VERDICT If you value supersonic framerates over all else, the XL2720 has you covered, this time with more inches than ever.



STORAGE

Seagate Wireless Plus

Not your average hard drive

PRICE \$249
www.seagate.com

Massive props to Seagate for creating one of the most innovative products of the year. It might look like an ordinary external hard drive, but it's far more complex. This is actually a wireless hard drive, which packs its own Wi-Fi transmitter and power supply into the tiny case, allowing it to connect to your wireless devices without any cables. The fact that there's also 1TB in the small box is incredible, with some serious black digital magic going on to make it all work.

Loading it up with movies and music is the same as a normal drive – just whack it into a spare USB 3.0 port on your PC, and fill 'er up. However, it's only when the USB 3.0 cable is removed that the magic happens. Hitting the power button turns on the drive's Wi-Fi network, which can then be connected to by any wireless device. PCs simply need to use their web browser to point to the files, while

Android and iOS gadgets need to first download the Seagate Media App. From there it's a simple matter of browsing what's on the disk, and playing it back. Seagate claims a ten hour battery life, and we found the Wi-Fi range to be about 5 metres, with a brick wall in between.

Unfortunately, it's nowhere near fast enough to act as a file server at LAN events, but with enough bandwidth for three simultaneous media streams, it's the perfect device for setting up small media sharing networks. It even works with MKV files, the preferred format of video socialists. Cough.

There's nothing quite like the Wireless Plus, yet it fills a very specific niche – those who need to set up impromptu file sharing networks at close range for multiple clients. If you ever find yourself in need of such a device, there's really nothing else quite like it. BENNETT RING



- Very convenient in certain circumstances
- Crazy tech
- Tiny form factor

- Limited wireless range
- Low compatibility with preferred file types

VERDICT As well as being a technological marvel, for a very specific set of users the Seagate Wireless Plus does its job perfectly.



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May 6, 2013
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May 3, 2013
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NETWORK

Linksys EA6500 802.11ac

Wi-Fi done right

PRICE \$245
www.linksys.com

Despite what the box claims, most Wi-Fi devices suck at streaming HD. When they're not disconnecting, they're stuttering, and it's only since the introduction of super-fast 802.11ac that we're finally seeing cable-free connections that have the bandwidth to shunt around high-res episodes of Game of Thrones. This router from Linksys is one of the fastest.

We should point out that there's no modem included – all it can do is run a wireless network. Also, 802.11ac hasn't actually been ratified yet, which means there's a tiny chance that when it does become formalised, the EA6500 won't actually work. We really doubt that will happen though, as we've seen unrated routers for past 802.11 standards, and they've never had this issue.

Logging into the router via the web interface reveals a wonderful

screen that should ease network novices into even the most intricate of options. On the flipside, network pros will miss some of the more advanced features.

802.11ac devices are notorious for not living up to their specs, but the EA6500 is one of the fastest we've tested. At a range of five metres, through one concrete wall, it managed an obnoxious speed of 72Mbps write, 97Mbps read, plenty enough for HD video streaming. Even at 10 meters range, our client was pulling in data at 47Mbps – twice the speed of similar routers.

With more motherboards and laptops shipping with 802.11ac, now is the time to jump on board this high-speed wireless bus. And the Linksys EA6500 is one hell of a conductor.

BENNETT RING



- As fast as it gets
- Great interface
- Very long range

- No ADSL modem
- Rather pricey
- Requires dongles for older products

VERDICT Now that 802.11ac is finally becoming worthwhile, you might as well go for the fastest 802.11ac router you can find – the EA6500.

10

AUDIO

Turtle Beach Z Seven

Expensive audio holiday

PRICE \$349.95
www.turtlebeach.com

Turtle Beach's willingness to charge astronomical prices for its headphones knows no bounds, with the Z Seven the latest product to stretch the limits of what we deem acceptable. At \$350, it's facing squarely off against the combined might of a dedicated soundcard powering quality headphones. Is the MLG Pro Circuit branding enough?

The Z Seven arrives with a USB dongle that contains a digital sound processor, and also serves as a slightly confusing controller for sound profiles and options. Different equaliser presets can be downloaded, but we found the default scheme the most comfortable. Dolby Headphone is included, enabling virtual surround over the stereo speakers, but the sense of direction wasn't quite as good as Creative's SBX Surround.

The headphones are surprisingly small considering the huge price tag,

and despite the small cup size they house high-quality 50mm drivers. We tested these back to back against our favourite headphones, the Audio Technica ATH-A500X, and didn't find them wanting. They mightn't have held quite as much detail in the very high, bright end, but their focus on a warmer sound will be more pleasing to a wider audience. We'd go as far as to say they're the best Turtle Beach headphones we've tested.

The only problem is that eyebrow-raising price. We still think one of Creative's new ZX cards along with the ATH-A500X headphones will deliver a slightly better soundscape usable in a wider range of circumstances, all for fifty bucks less. However, if you're in dire need of an external USB sound solution, and price is no obstacle, the Z Seven is definitely a quality product.

BENNETT RING



- Excellent sound quality
- Audio profiler is handy
- Perfect voice recording

- So expensive
- No carry case
- Bulky USB dongle

VERDICT If you're looking for the ultimate external gaming sound solution, look no further.

9

MENAGERIE

Our perfectly engineered creations remain in stasis this month, but that's all set to change next issue, when the mighty Z87 motherboard chipset makes its mark!

WITH BENNETT RING

BUDGET

The perfect entry-level gaming PC

CPU

AMD FX 6300

\$141 www.amd.com
It's time to upgrade our AMD chip. Six-cores of updated architecture are just what we need!



MOBO

ASRock 980DE3/U3S3 AM3+

\$107 www.asrock.com.au
Our new CPU needs a new ASRock home.



RAM

Kingston DDR3 8GB 1333MHz CL9

\$40 www.kingston.com
For those times when four just ain't enough.



VIDEO

HIS Radeon HD 7950 3GB

\$319 www.hisdigital.com
It might be pricey, but it's worth the power.



POWER

Cooler Master 500W

\$55 www.coolermaster.com
Unlike high end PCs, the Budget build doesn't need a lot of juice to get up to speed.



SOUND

Sennheiser HD201 + ASUS Xonar DG

\$67 www.sennheiser.com
Headphones plus soundcard – yes!



OPTICAL

Lite-on DVD-RW

\$20 www.us.liteonit.com
We'd happily retire the drive, but some of our guys still believe in physical media.



STORAGE

Toshiba DT01ACA050 500GB HDD

\$55 www.toshiba.com.au
Half a Terabyte should handle everything.



DISPLAY

Samsung S24B300H 24"

\$175 www.samsung.com
Crystal clear 1920 x 1080 resolution.



CASE

BitFenix Shinobi

\$64 www.bitfenix.com
Nice for the price. This is the little brother of the case used in our Performance build.



KEYBOARD

Tt eSPORTS Challenger

\$45 www.thermaltake.com.au
Built for PC gamers. Macros, shortcuts, the lot.



MOUSE

Gigabyte M6900

\$22 www.gigabyte.com.au
A sensor resolution of 3200DPI will make your headshots count.



TOTAL - \$1070

PERFORMANCE

Most of the bells and whistles, without breaking the bank

CPU

Intel 3rd Generation Core i5-3570K + Cooler Master Hyper 612 PWM

\$219 + \$48 www.intel.com



MOBO

ASUS P8Z77-V LK

\$160 www.asus.com.au
Awesome overclocking features via an easy to use BIOS.



RAM

Corsair CMX8GX3M2-A1600C9 8GB (2x4GB) DDR3

\$69 www.corsair.com



VIDEO

Gigabyte Radeon HD 7970 GHz OC

\$449 www.gigabyte.com.au
It's fast, affordable and comes with games.



POWER

Corsair 650W VS650

\$91 www.corsair.com
With minimum removable cables, this overclock-ready PSU delivers!



SOUND

Sennheiser PC151 + ASUS Xonar DG

\$132 www.sennheiser.com
Get rid of that onboard rubbish!



OPTICAL

Lite-on DVD-RW

\$20 www.us.liteonit.com
This is the one bit of kit that stays the same between most of our machines.



STORAGE

W.D. Caviar Black 1TB + OCZ Vertex III 120GB

\$128 + \$119

www.wdc.com / www.ocz.com



DISPLAY

BenQ XL2420T

\$499 www.benq.com.au
We've gone back to BenQ's 24" display after seeing the horrific aliasing on 27" cheapies.



CASE

BitFenix Shinobi XL

\$159 www.bitfenix.com
Just like the beloved Shinobi, but bigger.



KEYBOARD

Tt eSPORTS Challenger Pro

\$45 www.thermaltake.com.au
A Performance system needs this keyboard.



MOUSE

Razer DeathAdder V2

\$59 www.razerzone.com
Doesn't bite!



TOTAL - \$2,114

PREMIUM

Crank everything to Ultra, including your credit card limit

CPU

Intel 3rd Generation Core i7-3770K + Noctua NH-D14

\$335 + \$85 www.intel.com



MOBO

Gigabyte GA-Z77X-UD5H

\$275 www.gigabyte.com.au
USB 3.0, at long last.



RAM

2 x Corsair Vengeance DDR3 Low Height Kit

\$144 www.corsair.com
16GB should be more than enough.



VIDEO

2 x Leadtek GTX 680

\$940 www.leadtek.com.au
We're sticking with NVIDIA's dual GPU solution, due to stutter issues with AMD.



POWER

Silverstone Strider Plus 850W

\$209 www.silverstonetek.com
A high end PSU to ensure stable overlocks.



SOUND

ASUS Xonar D2X + Audio Technica ATH-A500x

\$299 + \$149

www.asus.com/audio-technica.com



OPTICAL

Samsung SH-B123A Blu-ray Combo Drive

\$89 www.samsung.com.au
Blu for you!



STORAGE

W.D. Caviar Black 1TB + Samsung SSD 840 PRO 512GB

\$96 + \$535

www.wdc.com / www.ocz.com



DISPLAY

Dell 30" U3011 UltraSharp

\$1299 www.dell.com.au
Delivers pixel-perfect 2560 x 1600 resolution.



CASE

Cooler Master Cosmos II Ultra Tower

\$379 www.coolermaster.com
Big is best!



KEYBOARD

Razer Black Widow

\$109 www.razerzone.com
Mechanical keys... drool...



MOUSE

Razer DeathAdder V2

\$59 www.razerzone.com
Amazing performance without paying through the nose.



TOTAL - \$4,826

THE BEAST

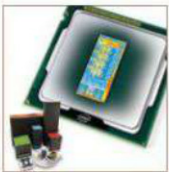
When overkill is barely enough...



CPU

**Intel 3rd Generation
Core i7 3770K +
EK-KIT H30 360
HFX Cooling Kit**
\$359 + \$349

www.intel.com
www.pccasegear.com.au



MOBO

**Gigabyte G1.
Sniper 3**
\$344

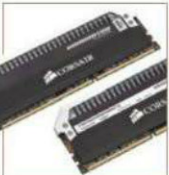
www.gigabyte.com.au
This high end Z77-based board has plenty of room for more graphics cards when you decide to upgrade.



RAM

**Corsair Dominator
Platinum 4 x 4GB
DDR3 2400MHz**
\$429 www.corsair.com

It doesn't get much faster than this.



VIDEO

**3 x ASUS GTX
Titan \$3897**

www.asus.com.au
Welcome to crazy town, population 200fps.



POWER

**Thermaltake Tough
Power 1500W**
\$339

www.thermaltake.com.au
1500W should be plenty for the three GPUs running alongside an overclocked CPU, as well as the storage within.



KEYBOARD

**Razer BlackWidow
Ultimate Stealth
Edition \$229**

www.razerzone.com
You name it, this keyboard can do it. Macros, anti-ghost features, adjustable lighting, the whole nine yards.



SPEAKERS

**Paradigm Cinema 110
with dual subwoofers
and Paradigm monitor
center channel +
Pioneer VSX-921 amp**
\$3299

www.eastwoodhifi.com.au



OPTICAL

**Samsung
SH-B123A Blu-ray
Combo Drive**
\$89

www.samsung.com.au
Putting in a Blu-ray drive allows your PC to double as a powerful media box.



HEADPHONES + SOUND CARD

**ASUS Xonar
Phoebus + Audio
Technica ATH-A500X
Headphones**
\$299 + \$149

www.asus.com
www.audio-technica.com



STORAGE

**OCZ 240GB
RevoDrive 3 X2 +
OCZ Vertex 4
520GB + 2 x WD
1TB Velociraptor**
\$899 + \$799 + \$329

www.wdc.com / www.ocz.com



DISPLAY

Panasonic AE8000
\$2800

www.panasonic.com.au
Beautiful 1920 x 1080 gaming. Unfortunately you won't be able to do 3D gaming at anything higher than 720p due to the limitations of HDMI 1.4.



CASE

**Cooler Master
Cosmos II Ultra
Tower \$379**

www.coolermaster.com
It's big, it's beautiful, and it's also nice and quiet. The compartmentalised interior ensures everything runs ice-cool.



INPUT DEVICES

**Razer Mamba Wireless
Gaming Mouse + Xbox
360 USB Wireless
Dongle + Xbox 360
wireless controller**
\$179 + \$40 + \$40

www.razer.com / www.xbox.com



STEERING WHEEL

**Fanatec CSR Elite
with pedals and
shifters \$1199**

www.fanatec.de
There's nothing better than "Germengineering" to deliver the most precise force feedback around.



JOYSTICK

Logitech G940
\$399

www.logitech.com
With a force feedback joystick, separate throttle and dedicated rudder pedals, the G940 is perfect for any flight sim.



COCKPIT

**Obutto oZone with
Buttkicker gamer 2
and TrackIR 5 Pro**
\$1100

You're going to need somewhere to mount your wheel and joystick, and the Obutto frame is a favourite of ours.



TOTAL - \$17,535

Introducing
LEVETRON
by
ΔZIO®



AZ-GM2000

\$49_{rrp}

"AZIO really shows what a true gamer's keyboard should be with the Levetron Mech5." - 97%
tweaktown.com



AZ-GH808

\$95_{rrp}



AZ-KB577U

\$139_{rrp}

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TOP 5 FEATURES

1 »

Forget triple score.

How about triple WAN?

Triple-WAN ports for 3G/4G LTE, ADSL2+ and Gigabit Ethernet WAN (EWAN) for broadband connectivity.

2 »

Optimum network performance

LTE support and four Gigabit LAN ports with data rates reaching up to 1Gbps.

3 »

Maximum connectivity and minimum interruption

Auto fail-over 3G/4G support feature (via the built-in USB port) quickly and smoothly connects to a 3G/4G LTE network in the event that your ADSL/fibre/cable line fails. Allowing you to keep playing when your main WAN service is down.

4 »

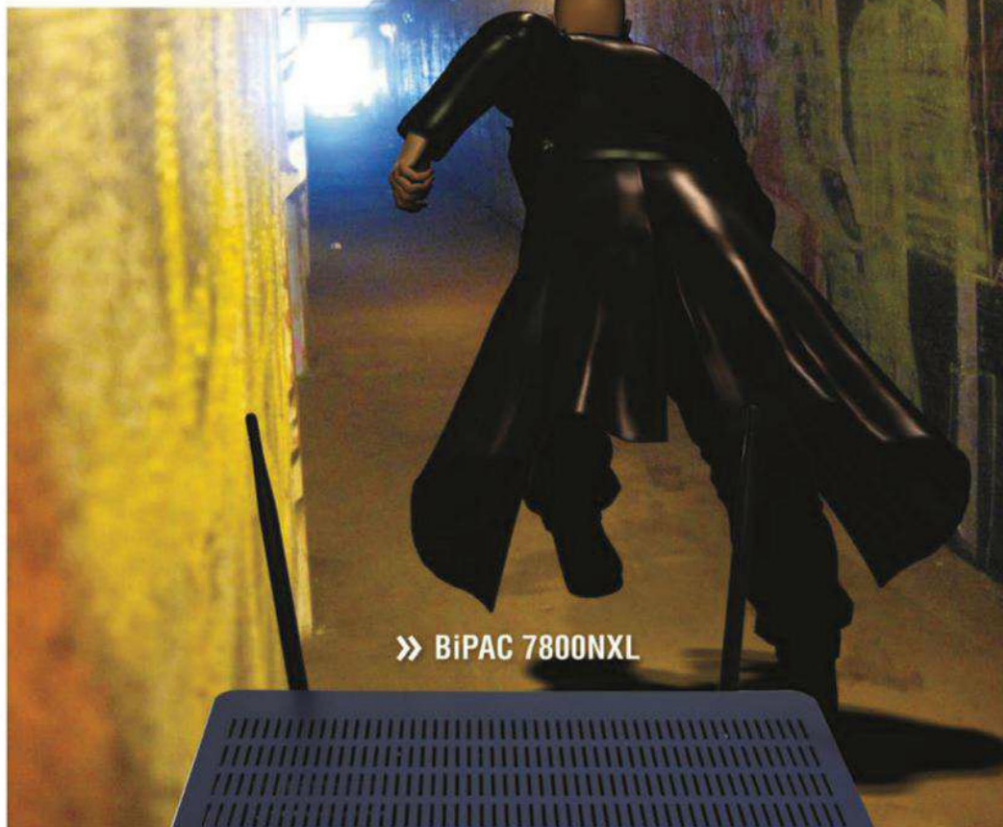
The best ADSL speed

Signal to noise ratio (SNR) tweaking for best ADSL speed.

5 »

Greater stability

Uses the same powerful Broadcom chipset as 7800V Series.



» BiPAC 7800NXL



HIGH PERFORMANCE THAT'S HARD TO BEAT

Competitive? Can't stand to lose? Billion's 7800NXL offers high performance and an unrivalled plethora of features that are sure to give you the winning edge over your opponent.

The new BiPAC 7800NXL replaces Billion's ever-popular 7800N and offers an all-in-one ADSL2+ modem router solution that is NBN fibre-ready. It comes with triple WAN; including simultaneous dual wireless-N 300Mbps, Gigabit Ethernet and 3G/4G LTE. It also boasts fast fibre connectivity via the Gigabit Ethernet WAN port with print server support through the USB port. Other features include network attached storage (NAS) with digital living network alliance (DLNA), file transfer protocol (FTP) access and 3G/4G LTE modem hosting to connect to the 3G/4G LTE network for Internet access.

Thanks to the new 7800NXL you've won before even hitting the Start button.

**For a complete list of stockists
head to billion.com.au**

THE BUNKER

HOT LEAD

Sometimes we in The Bunker need to go the extra mile. Note this is an extra distance on top of the ALREADY significant extra miles we go. But these times – these are significant efforts to wring even an extra percentage of performance out of the hardware that gets shipped to us in pristine condition.

Rarely does that gear actually leave The Bunker in pristine condition, however. Beaten, bruised, burnt, charred, and sometimes just plain melted (the process of melting, though, is anything but plain), we make a lot of sacrifices to bring you those speeds. Let it not be said that we are a wasteful lot – after all, that's why we had the incinerator installed.

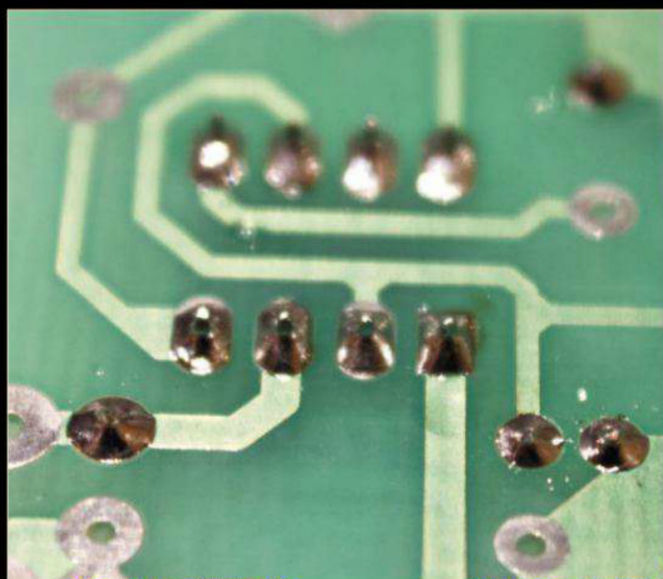
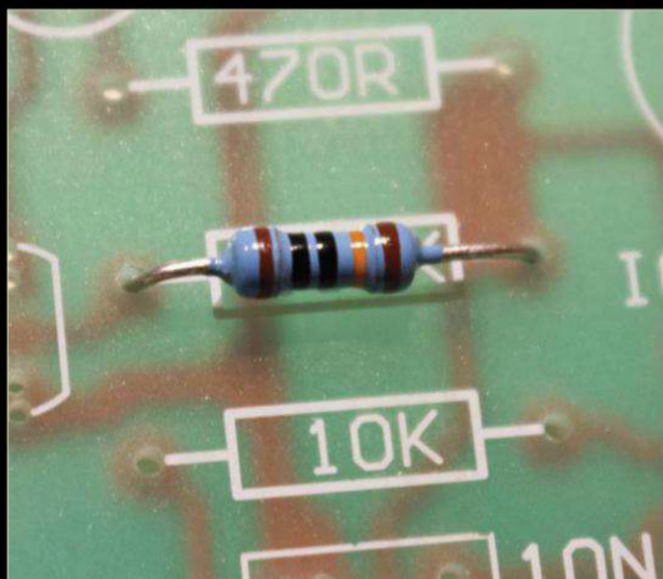
Hopefully you won't need to dispose of any expired silicone in your quest for a Beast-worthy bench. But if you want to follow our PCB modification and soldering guide to achieve that extra edge, chances are some hardware may not emerge unscathed. So, take extra caution! Practice on a piece of kit that you know you're not going to miss. Then, when you're ready to tinker, you'll know you're able to get it right.

Next up: augmenting the Tech Editor.

74 IRON MEN: PCB MODIFICATION AND SOLDERING TUTORIAL
Crack out the soldering iron for our guide to modifying your motherboard and other pieces of kit!



Our Insane Award is bestowed upon the tech that dares to break boundaries, no matter the cost!



BUNKER TESTBENCH

CPU

INTEL I7 3770K

www.intel.com.au



MOBO

ASUS MAXIMUS V GENE

www.asus.com.au



GPU

GIGABYTE GTX 680

4GB OC

www.gigabyte.com.au



RAM

G.SKILL RIPJAW 2X4GB

@ 2400MHz CL10

www.gskill.com



SSD

TWIN KINGSTON HYPERX

240GB SSDS IN RAID 0 MODE

www.kingston.com



PSU

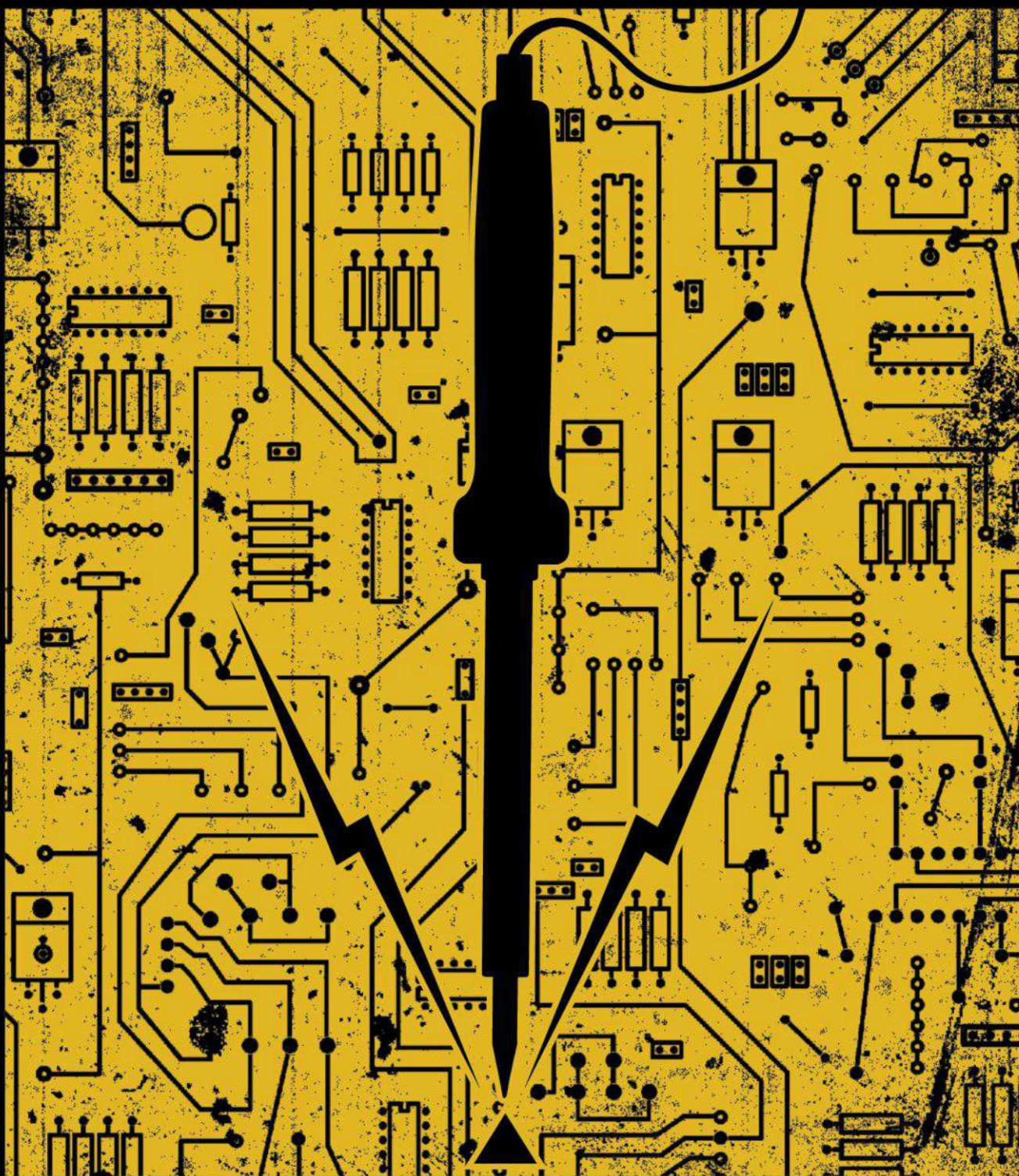
ENERMAX MAXREVO 1500W

Enermax.com



IRON MEN

MATT WILSON heats up The Bunker with the Experts Guide to PCB Modification and soldering irons



When you first walk into your local Jaycar store, you'll be bombarded with what seems like an endless list of part numbers and tiny plastic packets full of random electronic components. It's understandable to be confused, so here's a quick rundown of what equipment is commonly used while soldering PCB (printed circuit boards) found inside your PC or laptop.

Obviously, the first thing you're going to need is a soldering iron. These can range from an \$8 bargain bin iron to a whopping \$500 station with enormous range of control over heat, voltage and even cooling. Like everything in the realm of retail in the 21st century, the internet has forced stores like Jaycar (and some very select Dick Smith) stores to lower their prices on soldering irons and accessories significantly. In 2005, we purchased a soldering iron for roughly \$350; it was a 60W ceramic unit with a digital control station. Last week, we purchased a new iron in order to test it before recommending one in The Bunker, and it only cost us \$179 with the same features.

So what determines a soldering iron's price? The major difference comes from what level of control over temperature the iron has, along with its ability to maintain that temperature accurately. For example, a \$10 electric iron will generally have no heating control, no stand (to keep the hot tip off your table) and a very unreliable temperature range. It will get the job done if all you're doing is soldering a speaker wire inside your \$25 pair of headphones, though if you want to get into precision soldering you really need to start gaining control of temperature and tip size.

Moving up from the cheap and nasty irons plaguing the shelves of your favorite hobby shop, you should begin to see irons in the \$40-\$80 range. These will generally be either electric or gas powered (with a few different variety of fuels available). These may have an analogue heat control, and they may also have a decent quality ceramic element meaning greater temperatures can be reached and maintained.

Tinning the iron



'You can get a gas powered iron that has interchangeable tips and leave the tip off to convert it into a miniature blowtorch'

The biggest benefit of a gas powered iron is the ability to take it anywhere as its power source is contained within (in the form of a small fuel cell). It is generally fairly light given its size and again depending on how much you spend may even come with detachable tips for various kinds of work. These are very popular for electricians as they can be chucked in the toolbox and in most cases refilled with a can of lighter fluid in no more than 30 seconds.

Another strong point of the gas powered iron is how quickly it can generate heat. A decent \$60 gas iron will go from room temperature to 300C in 12-20 seconds, while an electric variant could take a few minutes. This is a luxury though, as it's quite rare your life will depend on the iron heating up immediately (unless you defuse bombs for a living).

Lastly, for the MacGyvers of The Bunker readers, the gas powered soldering iron can in some cases perform one final transformation. Depending on the money spent (these ones are usually around \$80) you can often get not only a gas powered iron that has interchangeable tips, you can leave the tip off to convert your iron into a miniature blowtorch. Again, depending on how much you spend, and its fuel source, temperature ranges of the flame will typically vary from 200C to 400C+.

Moving in to the \$100 range, we begin to see gas powered torches and irons become increasingly rare, and we move back into the electricity department. However, there should now be entire soldering stations, complete with a rack to rest the iron on when not in use, a digital or analogue



Some of the tools you'll need for this tutorial: practice PCB, circuit board cleaner, solder, and a solder sucker

temperature controller, a good quality ceramic heating element, and last but not least a temperature range of roughly 160-500C. These are generally the units worth owning if you're going to be soldering in the comfort of your own home, as they will last a lot longer than the cheap units and the greater level of control will vastly improve the quality of your work.

THE RIGHT TIP FOR THE JOB

Many people wouldn't even realize that using different tips is extremely important when doing precision soldering work. These can range from clamps, to flat head, very sharp points and even square depending on the job you're trying to complete.

The vast majority of the time you'll be using a ceramic core tip, with a steel end in which to apply your solder. Preparing the tip is also very important, this is typically called "tinning" the iron. What tinning involves is applying a thin layer of solder to the iron, and whipping it away repeatedly. People have differing preferences, though we tend to apply and remove solder 3-4 times from our tip before doing any work with the iron. This ensures the tip is clean and dust free, which can help ensure solder doesn't ball up and become stuck to your tip excessively. You also want to continue to wipe your tip clean with a damp sponge throughout your soldering project.

When modifying motherboards, it would be a good idea to buy a flat head tip, as they can be useful for removing heatsinks which have been soldered in place (like some Xbox components), as well as removing certain chips with 4-5 pins simultaneously.

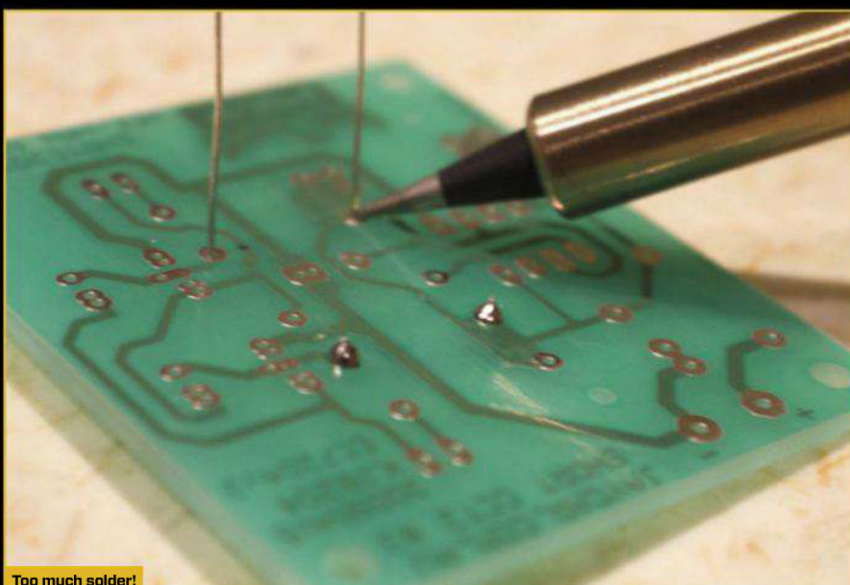
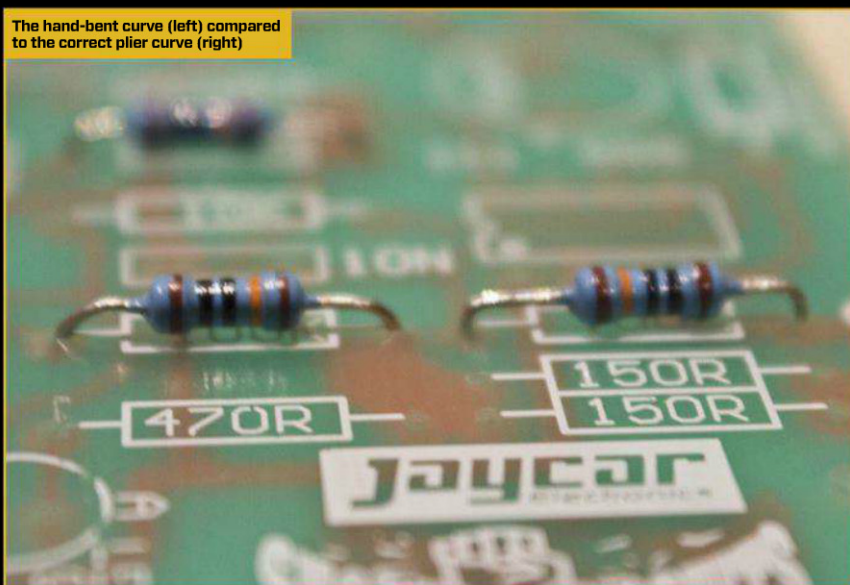
Maintaining multiple tips is as simple as cleaning them thoroughly after use with water and/or electronic contact cleaner. This should help to remove and flux or dried solder from the tip, making it easier to set up next time.

WHAT IS SOLDER?

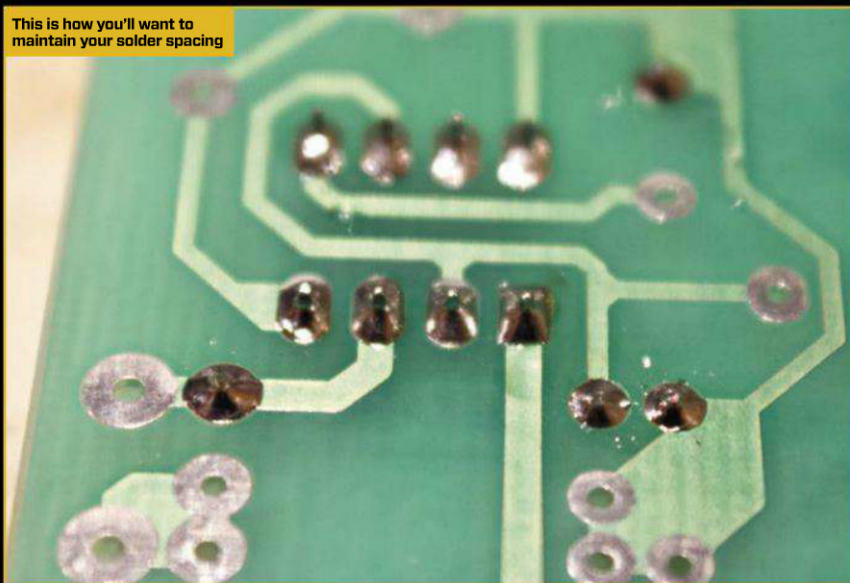
Solder itself is a low melting alloy made up of tin and lead. For this reason, it is important that you don't inhale the smoke while working, as this has been recorded in numerous studies to contain some lead oxide vapor. Before you go out and buy a gas mask for your soldering station, we should try to be clear that the levels of lead in the vapor are incredibly small, and most health warnings simply state not to directly inhale the fumes. If you are worried about lead fumes however, you should take all of the precautions you would when dealing with any lead substance: wearing a dust or paint mask with a thorough washing of your hands before eating any food.

Moving on from the little safety speech, solder itself being tin and lead means it has a relatively low melting point: usually 180 degrees centigrade depending on the tin-lead ratio. This melting point can be as high as

The hand-bent curve (left) compared to the correct plier curve (right)



This is how you'll want to maintain your solder spacing



230 degrees centigrade if there is silver or copper in the solder alloy. Its main function is to join metals which would usually require far higher temperatures to melt, or to connect components to electronic circuitry or printed circuit boards.

Solder also contains a coating called flux which helps protect the alloy from oxidising. This flux coating will melt onto the soldered surface after joining and can also be seen evaporating whilst the solder is in transition from solid to liquid state. It's not a good idea to be inhaling the flux, and if you would like your job to appear neater after completion, all flux around joins can easily be cleaned off with electronic contact cleaner and a very soft bristled toothbrush (we'd recommend an infants brush).

SOLDERING TECHNIQUE

Some will say that soldering is simple, though anyone who has undertaken a course on the subject would beg to differ. It's not as simple as heating up some solder and dripping it onto an electronic join or wire. There are a few little tricks to learn.

Rule number one: never bend on-board component pins with your fingers. This will create a curve instead of a sharp 90 degree bend in the pins. The reason you want a 90 degree bend is they creates less pressure on the join during thermal expansion and the join will last far longer. In the picture below, we've compared a hand-bent resistor to a plier-bent resistor; you should be able to tell which is which.

The second rule, though some may say it's the most important: do not overdo it with the solder. Applying too much solder not only looks messy, the extra heat needed to melt such a large amount of solder can often lead to a drying out of the solder, and it can separate from the join over time through cracks and drying out.

Another obvious issue with using too much solder is when joins are close together they may actually become bridged. Even if the solder isn't touching now, in a couple of months' time dust and other particles can bridge the gap between joints, creating short circuits and other issues.

The right amount of solder is just enough to fill in the hole in your PCB, firmly connecting your on-board component or wire, though not so much that it "bubbles". The solder should have a fairly flat top, and should not be overly dull when looked at under light. Very dull solder can often mean it has been overheated, which can lead to cracking in the future (leading to disasters such as the Xbox 360's Red Ring of Death).

If you do find you've applied too much solder to your join, don't panic! There is always the trusty "solder sucker" to remove your current solder job and start (almost)

afresh. The one we've got only cost us \$6 on eBay and works better than most others we've tried (excluding electronic vacuumed models). Simply squeeze out the air from the rubber ball, place the tip on your molten solder and release your grip, creating a quick vacuum effect and sucking the solder off the join.

Once you're happy with your join, simply use flat wire cutters to trim off any excess wire and double check for any cracks or blemishes in your joint.

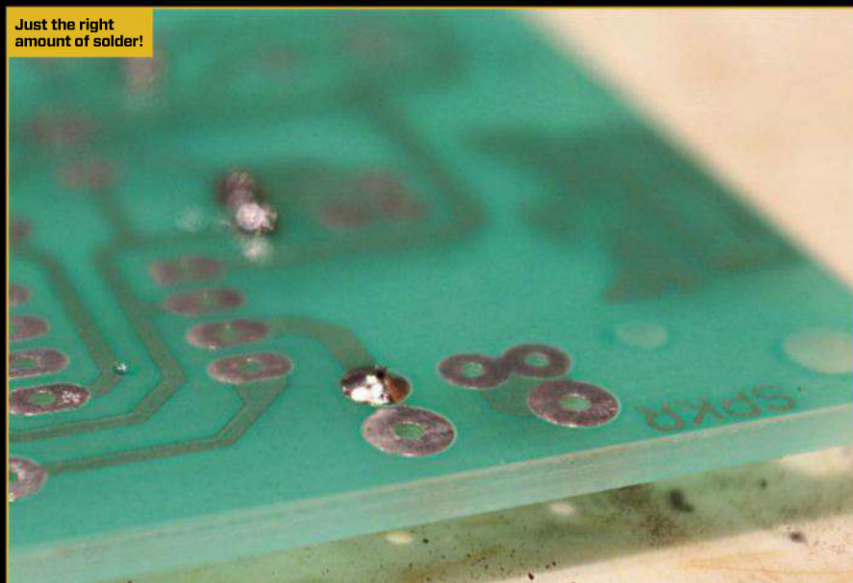
When working with certain joins (normally when attaching wires) it can sometimes work out best to prepare the joint before you attach the wire. This means melting

a small amount of solder onto the join covering it in a nice thin layer. This allows you to simply reheat the existing solder and insert the wire through the join without needing to handle the wire, soldering iron and soldering wire all at the same time.

Another common failure is people not correctly heating the soldering surface before beginning work. What we mean by this is many people try to simply melt the solder and run the molten alloy onto the join all at once. This is not the correct method for soldering!

It is ideal to first heat the join completely before you even introduce your solder to the job. You want that join to be hot enough

"Very dull solder can often mean it has been overheated, leading to disasters like the Xbox 360's Red Ring of Death"



to melt the solder on contact, which will allow you far greater control when applying the solder, and will also mean you don't go overboard and apply far too much solder to the surface of your job or join.

This same methodology can be applied to joining two wires together. After twisting the two wires (this creates a weak bond before solder is even applied) you want to heat the wires from the bottom of the join using the thickest part of your soldering tip. This will allow the entire wire join to become as hot as the iron itself making the join far easier than running the iron backwards and forwards across the wire as you struggle to smooth out all of the solid chunks of solder left behind.

Don't forget to pick up some heatshrink! What this magical product does is re-insulate joined wires like the one photographed here. To apply it, you simply slide it over the wire you're joining, and when it's resting in the desired position you carefully rub your soldering iron tip up and down the heatshrink until it shrinks into a nice tight insulation layer, making your newly joined wire appear much more professional and also function far more safely.

RESISTANCE IS FUTILE

Now we've covered some of the basics, you can go out and grab yourself a piece of practice board, or even a complete practice PCB from Jaycar. There are a ton of different kits to pick from, like mini FM radios, flashing lights and even USB phone chargers. It's probably the best way to get practice in before moving on to your PC motherboards – unless you've got the disposable income to afford a mistake.

And why would you want to be pulling your motherboard or videocard out of your PC and poking at it with a hot iron in the first place? It's quite simple: either to repair a faulty connection, or to remove or adjust an existing circuit which you'd prefer not to be there. The most common example of this is an "OCP mod" or Over-Current Protection modification.

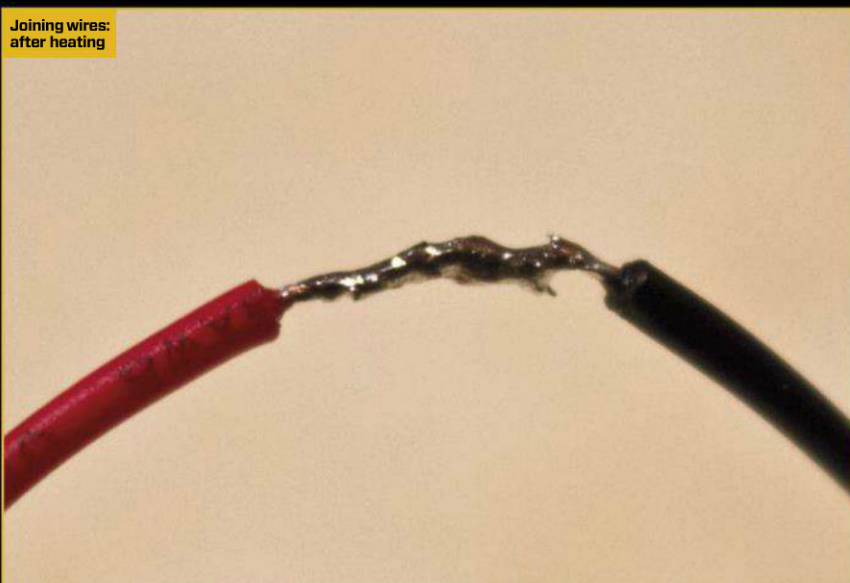
You see, motherboards and video cards often have hard-wired protection to stop "n00bs" from applying too much current to their processor, memory or any other major component. This is a great thing for 99.9% of the PC gamers out there, but for the select few who choose to pursue overclocking to such a level where liquid nitrogen simply isn't enough, many pick up their soldering irons and go to work removing vendor applied restrictions in order to gain access to higher current and voltages when overclocking their system.

An OCP mod will require a whole Bunker tutorial in and of itself, and you'll first need to learn how to read common resistors (ones that are unmarked anyway) and how to decipher what some PCBs actually tell you

Joining wires:
before heating



Joining wires:
after heating



about their onboard componentry.

Most common resistors will have a set of rings on the main body which indicates their specifications. For example, the ones featured in this image is a 0.5W resistor, with a 100Kohm resistance. We can decipher this by looking at the ring order, which goes Brown, Black, Black, Orange, Brown.

In order to decipher this, we need to first learn a few things. The 4-band code is used for marking low precision resistors with 5%, 10% and 20% tolerances. Identifying the value will become easy with a little practice, as there are only a few simple rules to remember:

The first two bands represent the most significant digits of the resistance value. Colours are assigned to all the numbers between 0 and 9, and the color bands basically translate the numbers into a visible code. Black is 0, brown is 1, red is 2

and so on (see the color code table). So, for example, if a resistor has brown and red as the first two bands, the most significant digits will be 1 and 2 (12).

The third band indicates the multiplier telling you the power of ten to which the two significant digits must be multiplied (or how many zeros to add), using the same assigned value for each color as in the previous step. For example, if this band is red (2), you will multiply it by $10^2 = 100$ (or add 2 zeros). So, for the resistor we used in the previous example, the value would be: $12 \times 100 = 1200\Omega$ (1.2k Ω).

Note: If the multiplier band is gold or silver, the decimal point is moved to the left by one or two places (divided by 10 or 100).

The tolerance band (the deviation from the specified value) is next, usually spaced away from the others, or it's a little bit wider. A color is assigned to each tolerance: gold is

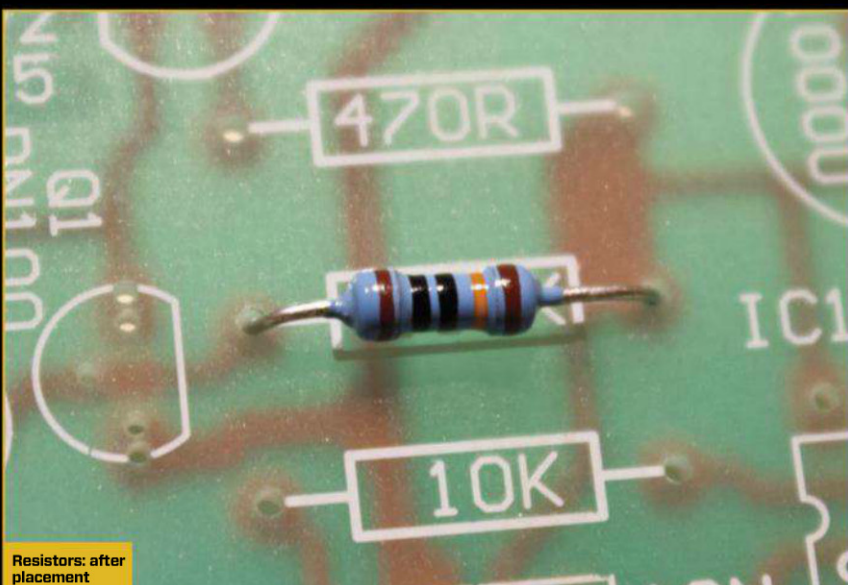
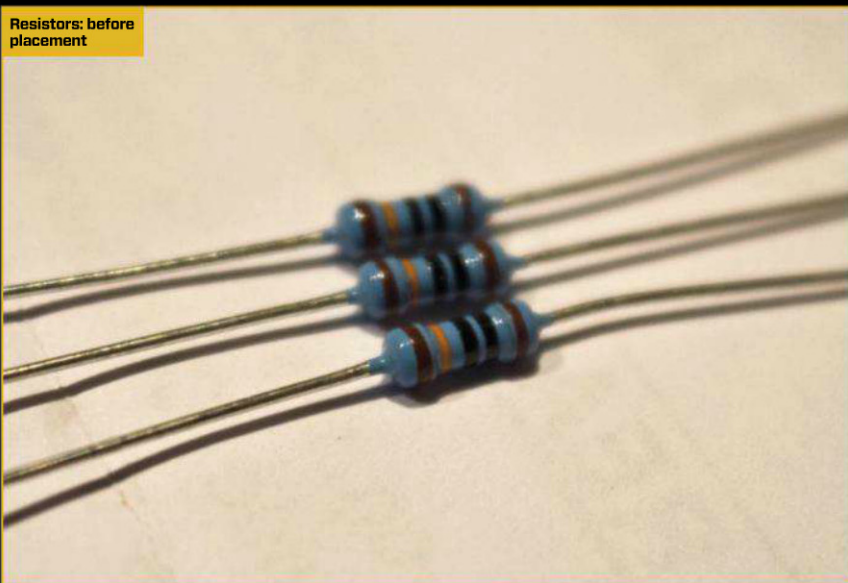
5%, silver is 10%. 20% resistors have only 3 color bands - the tolerance band is missing (see table below).

While this may at first seem incredibly complex, it allows you to determine what the rating is on a resistor, and if it's attached to a circuit you'd like to produce a higher current on, you can simply replace with it with a lower Ohm resistor after completing some quick maths to find your target voltage and current from your motherboard's power distribution.

Another way to determine the Ohm rating of a resistor is to look at the printed circuit board. Quite often it will say R1 or R2, which will generally mean Resistor 1 or Resistor 2. Below these markings may be an Ohm rating for these resistors along with more information. If not, your motherboard manual may contain more information on each resistor in place. Again, failing that, you can remove the resistor and connect it to your own custom PCB. By running a known current and voltage through the resistor, you can determine its value and work backwards to figure out an appropriate replacement resistor in order to pass more voltage and current through your motherboard's power delivery system.

We haven't even gotten to the really extreme modifications yet. So, until next month, we can't recommend picking up a few simple beginner kits from Jaycar enough. They're not only fun and give you a cool little device to play with after you're done, but they help immensely in the understanding of electronic circuits and PCB design and layout. This knowledge isn't only good for modifying PC components; it can be used for a wide variety of repairs around the house, from busted toasters to broken digital clocks on your car's dash board... which reminds us, we should fix that. [PC](#)

Resistors: before placement



Resistors: after placement

Color	1st digit	2nd digit	3rd digit*	Multiplier	Tolerance	Temp. Coef.	Fail Rate
Black	0	0	0	$\times 10^0$			
Brown	1	1	1	$\times 10^1$	$\pm 1\%$ (F)	100 ppm/K	1%
Red	2	2	2	$\times 10^2$	$\pm 2\%$ (G)	50 ppm/K	0.1%
Orange	3	3	3	$\times 10^3$		15 ppm/K	0.01%
Yellow	4	4	4	$\times 10^4$		25 ppm/K	0.001%
Green	5	5	5	$\times 10^5$	$\pm 0.5\%$ (D)		
Blue	6	6	6	$\times 10^6$	$\pm 0.25\%$ (C)		
Violet	7	7	7	$\times 10^7$	$\pm 0.1\%$ (B)		
Gray	8	8	8	$\times 10^8$	$\pm 0.05\%$ (A)		
White	9	9	9	$\times 10^9$			
Gold				$\times 0.1$	$\pm 5\%$ (J)		
Silver				$\times 0.01$	$\pm 10\%$ (K)		
None					$\pm 20\%$ (M)		

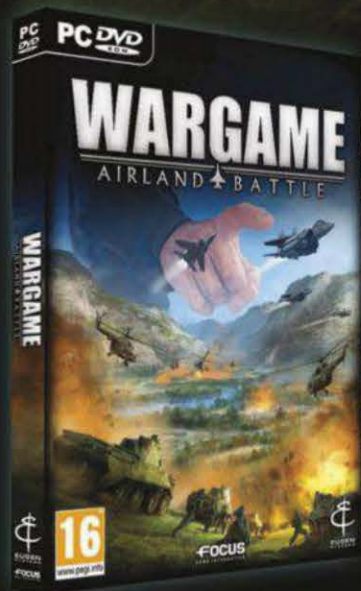
* 3rd digit is only for 5-band resistors

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REVIEWS

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Ubisoft Montreal is a massive studio. And that's not even counting its satellite offices that do a lot of grunt work. So it's no surprise that some of the Far Cry 3 team looked at where that game was heading and thought, "You know what? This is dumb".

And now we have Blood Dragon: a game that is as much the anti-Far Cry 3 as it is an attempt to make the dumbest game possible. It is a hyper pastiche of cinema tropes and videogame history, rendered with a confidence and consistency that simply should not come from a studio so large.

But it's there, and we revel in the resulting stupidity. The prefix 'cyber' is employed in far greater quantities than legally sanctioned. The dialogue is so bad, it hurts. Yet Blood Dragon never tries to hide this. It never tries to be something it's not. And that is what Far Cry 3 got so very wrong.

We don't believe it's impossible for a first-person shooter to tackle real issues and reflect upon the nature of the genre. But it would need to rethink and redesign its entire mechanical foundations for it to work. Until then, Ubisoft has gone in the complete opposite direction – hopefully that's gotten the last of Jason Brody out of their systems.

DANIEL HINDES

Editor

dhindes@nextmedia.com.au

SCORING SYSTEM | PCPP scores its games on a 1 to 10 scale. The higher, the better – though 10 is by no means a "perfect" game. We're not convinced such a thing exists, so consider a 10 a masterpiece of PC gaming, despite its inevitable flaws. A 5 is a decidedly average game; one that doesn't excel in any particular area, without being an affront to our senses – the ultimate in mediocrity. Below this, you'll start to find the games our reviewers suffered an aneurysm getting through; above it, the titles are truly worth your time and money. And remember: a score is only a vague indication of quality. Always read the full review for the definitive opinion!

WE PLAY ON ORIGIN!

During our frequent trips across Australia and around the globe, when we get that gaming itch, we just grab our EON 17S Origin Laptop. Extreme is the word, our lappy runs a 4GB GDDR5 NVIDIA GeForce GTX 680M Graphics card pumped out through an amazing Full HD 17.3-inch display at 1920x1080, and has the brains of an Overclocked Intel Extreme Edition Core i7-3920XM Quad-Core 4.5GHz chipset to run everything. Add to that 32GB DDR3 1600MHz Memory and a 480GB Intel 520 Series Solid State Drive and you have one serious mobile gaming solution. Don't just take our word for it, you can check them out yourselves at www.originpc.com.au and tell em' PCPowerPlay sent ya'!



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Far Cry 3: Blood Dragon

You've got the touch

DEVELOPER UBISOFT
DISTRIBUTOR UBISOFT
PRICE \$17.95
AVAILABLE AT Steam, uPlay, Retail
<http://fc3blooddragon.uk.ubi.com>

We don't know why this game exists. We don't know HOW it could possibly exist. After we finished Blood Dragon, we stayed for the end credits – partially to submit ourselves to the terrible 80s synth rock in the background (Vince DiCola would be proud) and partially to see if Far Cry 3 writer Jeffrey Yohalem was involved. He was not. Thank Christ. But the credits went on FOREVER, and the sheer number of people at Ubisoft Corporate who could have said, "This is a terrible idea, what is wrong with you?" is almost as staggering as their need to list themselves in the credits, even if all they did was breathe on a member of the actual dev team at a luncheon. Even the synth rock didn't stick around until the end.

But Blood Dragon did get made, and it teeters precariously on the edge of 'so bad it's good', occasionally slipping too far into on-the-nose references, only to regain balance with more subtle digs at 80s and 90s action sci-fi schlock and Saturday morning cartoons. The soundtrack is perfect. The neon glow of cold grey structures contrasting the lightning-stricken nuclear winter sky is perfect. The player character is voiced by Michael Biehn, for crying out loud. He reloads shotguns like Schwarzenegger in Terminator 2; enemy scientists who get shot by him quote Blade Runner as they fall to their knees. What could go wrong?

Only Ubisoft's attempts to remind players how clever it

thinks it's being. It's usually fruitless to criticise the lack of subtlety in a game where the player character's name is Sergeant Rex Power Colt, but in parody, subtlety is everything.

Such stumbles are few in number; for the most part, Blood Dragon hits its marks. The cutscenes, rendered in faux-16-bit 2D, are hilarious in their authenticity. The plot revels in its own absurdity, with a cyber-commando facing a rogue cyborg army headed by a cyborg villain who looks great in Bennett's chainmail shirt from Commando.

But there's a slightly more depressing tale behind the neon glitz and cries of "Release the

already played Blood Dragon.

It's a little depressing because this is the kind of thing we used to see come about by virtue of PC gaming's more open nature. The number of games made better after being released into the community's hands is uncountable, and some of PC gaming's best experiences are themselves total conversions. Though there are mods for Far Cry 3, they are jerry-rigged, clinging on for dear life at the few variables Ubisoft allows modders to tinker with.

That is not to discount the effort Ubisoft has put into creating Blood Dragon. But the joke occasionally wears thin;

"Enemy scientists who get shot by Sergeant Colt quote Blade Runner as they fall to their knees"


cyber sharks!" that concerns why the game is specifically Far Cry "3": Blood Dragon, and not just Far Cry: Blood Dragon. This is a total conversion of Far Cry 3 – near mechanically identical, but with new environments, new weapons and new enemy skins. Enemy voice barks are even exactly the same, but have been run through a vocoder to give them a kind of cyborg auto-tune quality. The jaguars that stalked Jason Brody through the Rook Islands are "cyber jaguars" here only due to a new chrome shader. Just as you will have heard many of Sergeant Colt's one-liners before, so too will you feel you've

when it does, you'll be left wondering why the game got made, but for different reasons than when you first heard it would involve wingless-dragons that shoot lasers out of their eyes (a fact Blood Dragon continually reminds you is obviously fucking cool, because it told you so).

It's at that point that you'll focus on more important elements of the experience than the one-liners and old-school cutscenes: Blood Dragon's subtle mechanical tweaks. All weapons suffer ridiculous crosshair spread, which forces Sergeant Colt into authentic 80s action movie shootouts where nobody is hitting

anything. Colt can run faster and jump higher than Jason Brody right from the get-go – to the point where aerial takedowns can be performed by simply leaping onto an enemy. There's no fall damage, because Colt has cyborg legs. His superior abilities push combat even further into the absurd, and it perfectly suits the subject matter.

Toward the end of the seven hour game are a series of combat arenas that make no sense, but the first-person shooting is so reminiscent of Doom that you won't care. And sure, Blood Dragon ends with a turret sequence, but it's one of the most over-the-top turret sequences out there. Combined with a paring back of the open world nonsense – here, it's a new landmass about a quarter the size of the Rook Islands, and there's no gathering, crafting, or radio towers to bother with; just outposts to capture – and Blood Dragon is the high points of Far Cry 3 distilled.

That its narrative and gameplay suffer far less dissonance than Far Cry 3's is less a compliment to Blood Dragon and more a realisation of how much Yohalem failed. Where he saw Mad Hatters, we only saw a mad hipster. And what is more defining of a hipster than the sheer amount of work Blood Dragon has put into dressing up Far Cry 3 ironically? If we were Yohalem, we'd be furious, because Sergeant Rex Power Colt has stolen Jason Brody's thunder. **DANIEL HINDES** 

WHY SHOULD I CARE

- It's rated R, for a 'high impact sex scene'. (Said scene certainly hurt our sides)
- Your favourite movie is Predator
- You don't need a deep narrative commenting on the nature of videogame violence to keep you entertained by videogame violence.

OR TRY THIS



BULLETSTORM
PEOPLE CAN FLY • 2011
 Kick & Whip
 Deserves a sequel



DUKE NUKEM FOREVER
GEARBOX • 2011
 Duke's back!
 The joke's on you!



TOTAL RECALL
PAUL VERHOEVEN • 1990
 The one-liners
 Everything that isn't a one-liner

VERDICT If this is what Ubisoft is capable of in its 'spare time', it deserves more time off. Inject this glorious blue neon goop into our veins!

9



DRAGGING ON

1. The trusty flamethrower. Works on enemy cyborgs; doesn't work on Blood Dragons. It just makes them angry.
2. We've deactivated this Outpost's Mega Shield, whilst allows Blood Dragons to charge on in and take care of the hostiles for us.
3. A Blood Dragon, rearing up and preparing to fire its laser eyes. This things are dangerous and hard to kill, so letting it into the outpost means we have to deal with it ourselves once it's done... lasering.
4. We still earn XP for every action, though skills aren't shown from a tree anymore; they're bestowed in a linear order.
5. Cyber hearts can be pilfered from dead cyborg enemies and thrown to attract Blood Dragons. It doesn't work very well when the dragon is already angry.

At its best, Blood Dragon is a refreshing explosion of colour, whilst distortion and RGB separation make for an authentic 80s VHS experience.

It's no spoiler to say that Blood Dragon eventually lets you ride a dragon. You just didn't expect it to show up in quite a laser show, did you?



DR DARLING: I wanna be blinded with your cyber-love.

The cutscenes are some of the game's funniest moments. This one apparently scored the game an R18+ rating. It's about as racy as Team America.

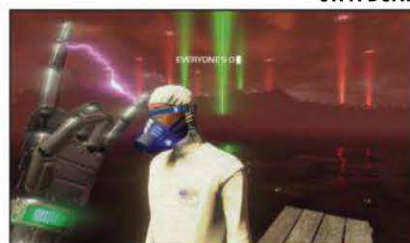
ON A BOAT



1. Our side mission: infiltrate this boat and rescue the scientist. Sounds simple enough.



2. They've seen us! Shoot everything! The scientist has a health bar, so we have to be quick.



3. THROW UP THE HORNS, WO000! Mission complete. Now we can put the band back together.

Sang-Froid: Tales of Werewolves

Lots of tails, too

DEVELOPER ARTIFICE STUDIO
PUBLISHER ARTIFICE STUDIO
PRICE \$14.99
AVAILABLE AT STEAM
www.sangfroidgame.com

The rifle can only fire a single shot before a long reload time, so use it between waves or when the wolves are sufficiently afraid.

Sang-Froid ('song-fwa', for those whose French needs a stropping) is the kind of game that will instantly let you know whether or not you're going to love it, based upon the very first loading music that plays. Not since the boundless optimism of Civilization IV's rendition of the Lord's Prayer has a piece of music so perfectly captured the tone of the game's thematic influences as well as its beautiful stylised visuals. This is a game with a clear and commanding identity.

The gameplay that follows is just as unique. To call it mere tower defence is a disservice to the amount of thought that has obviously gone into differentiating Sang-Froid from the oversaturated genre. Far more tactical and far less mind-numbing, the game presents a two-part hybrid of planning and action.

There are wolves, and at night they come to wreck up the place, so you spend the day allocating funds to the placement of traps around a snow-covered forest. All key information is communicated in this top-down view: what kinds of enemies will be present in each wave, as well as the direction they'll attack from and path they will take. Success in this strategic phase depends upon how well you can interpret this information and how smart you are with your trap placement as a result.

The second half takes place at night, and it's a third-person action melee affair with just as strong an emphasis on



"To call it mere tower defence is a disservice to the amount of thought that has obviously gone into differentiating Sang-Froid from the oversaturated genre"

smart thinking. Running through the dark forests and co-ordinating your own attacks with the placement of your traps highlights just how rewarding a well-planned strategy is in this action phase.

We say action, but really, it's built upon a strong tactical foundation. Just as the overhead daytime view communicates as much information as possible, so too does the game convey the intentions of the wolf packs themselves. The next enemy to attack is always highlighted, as is the time at which they will lunge.

A rather stingy stamina meter that depletes with every swing and dodge encourages careful consideration of every action, with extremely tense cooldown periods where both wolf and woodsman circle each other, snarling.

This is the true source of tension in Sang-Froid – a Fear Factor mechanic that governs when an enemy will attack, stand its ground or retreat. Survival comes down to managing fear and taking advantage of windows of opportunity as they present themselves – or creating those windows with buffs and abilities.

It's a simple yet wholly unique kind of tower defence AI.

As time passes and days are crossed off the calendar, Sang-Froid's scope gets bigger and its tactical avenues more complex, with more enemies, items and literal pathways opening up. Though its in-game art doesn't keep pace with its wondrous thematic inspiration, and the voice acting is mostly laughable, Sang-Froid is nonetheless an accomplished indie celebration of Canadian folklore and the furthering of a fledgling genre.

DANIEL HINDES

WHY SHOULD I CARE

- It's a new and more complex kind of tower defence
- Strategic thinking in the first phase is truly rewarded in the second
- Zip-lines
- It's 'Torne I', implying more werewolf-slaying action is on the way. We can't wait

OR TRY THIS



SANCTUM

COFFEE STAIN • 2011

- Tower defence with first-person action
- Repetitive



ORCS MUST DIE

ROBOT • 2011

- Tower defence with third-person action
- Orcs are people too, kind of...



SKYRIM

BETHESDA • 2011

- Be the werewolf
- Probably overpowered

VERDICT A new kind of tower defence for both the heart and the mind, Sang-Froid is a beautiful and creative indie gem.

8

Signal Ops

Broadsword calling Danny Boy

DEVELOPER SPACE BULLET DYNAMICS CORP
PUBLISHER SPACE BULLET DYNAMICS CORP
PRICE \$14.99
AVAILABLE AT GOG.COM
www.space-bullet.com

Signal Ops is a fantastic idea for a game hampered by its own ambition. It's a quirky take on the squad-based tactical shooters of old: Rainbow Six, Ghost Recon, and their less successful clones. The difference in Signal Ops is that you control the entire squad simultaneously in first-person – and all first-person perspectives remain on the screen at once.

It's justified by making you play as the man in the control room, rather than the actual boots on the ground. Your screen is actually a screen in base, with the squad members' perspectives dividing the viewing area and transmitted via radio. There are some great touches surrounding the introduction of this position, as well as little reminders – pulling up the map causes your character in the control room to physically look at his clipboard, in place of the screens themselves.

One-to-one control can only be activated for a single character at a time, though they're instantly cycled through with the number keys. Movement and aiming is awkward and shaky; the engine feels unstable at the best of times and the art style hurts readability of key items and objectives. A potentially more enjoyable way to play is to pick a character and use the order system to issue movement and follow commands – but this removes the whole point of the multi-perspective setup.

There are different character



There, the Spy (top right) keeps a guard occupied by blabbering about nothing, whilst the Wrench (bottom right) sneaks up behind. The Bold (left) minds the radio, as usual.

"In Signal Ops, you control the entire squad simultaneously in first-person – and all first-person perspectives remain on the screen at once"

classes available, each with different abilities. Some, like the Spy's ability to go visually undetected no matter what, break many of the AI routines and result in players gaming the system rather than thinking tactically. But the most annoying mechanic comes in the form of the radio – a device which must be installed in one of many power junctions scattered throughout the level in order to transmit the first-person feeds back to the player in the control room. Characters who step outside of the

radio's radius will have their feeds scrambled, so a tedious puzzle aspect rears its head as one character essentially spends missions leapfrogging others to move the radio and therefore the limits of the playing field. In doing so, tactical options also become small-scale – retreating is a fiddly thing, as is scouting ahead.

So what you have then is a simultaneous multi-first-person perspective tactical stealth action puzzle game. It's too much; especially for a control scheme that teeters

on unwieldy and cumbersome. There are glimpses of mad scientist-like genius, here – especially when it's found that enemies can essentially arrest a character rather than kill them, causing you to divert another to perform a rescue. Yet it's impossible to queue up orders, so all diversions feel stilted and a natural part of recuperating from tactics gone wrong. We're glad that someone attempted to at least make a game like Signal Ops – but this is a noisy, flickering first step. **DANIEL HINDES**

WHY SHOULD I CARE

- Quirky, dark, Orwellian overtones do it for you
- Death doesn't matter – you get "reinforcements"
- You prefer slower-paced tactical games
- You'd rather be M than 007

OR TRY THIS



**RAINBOW SIX
RED STORM** • 1998
Multi-man urban assaults
Just as many polygons



**NO ONE LIVES FOREVER
MONOLITH** • 2000
Trench coats and stiff upper lips
Where's the GOG.com release?



**FROZEN SYNAPSE
MODE 7** • 2011
Simultaneous tactics, but top-down
Where's the Android version?

VERDICT Signal Ops is worth more as a curiosity piece than as a complete and functioning game. This is what happens when you attempt too much.

5

Zeno Clash II

WTF Boogaloo

DEVELOPER ACE TEAM
DISTRIBUTOR ACE TEAM
PRICE \$19.99
AVAILABLE AT Steam
www.zenoclash2.com

Falling somewhere between a Jan Svankmajer nightmare and a surrealist Alejandro Jodorowsky surrealist fever dream, the world in which Zeno Clash and its sequel exist is a strange thing. The first game told the story of Ghat, a human "son" of a supposedly hermaphroditic bird thing named FatherMother. Upon discovering that FatherMother was actually male and kidnapped all of the children that made up its large and influential family, a revelation made whilst he lived with the single-minded and obviously insane "Corvids", Ghat attempted to kill FatherMother before fleeing. He then travelled the world until he came to its end, where he discovered an ancient golem, named Golem, who promised to end all conflicts, including the one between Ghat and FatherMother.

There was also a lot of punching. Seriously, a lot of punching. Did you get all that? There will be a test.

Zeno Clash II picks up soon after the last left off. In the intervening time, Golem has told all of FatherMother's kidnapped children how to find their real families and has brought "civilisation", in the form of law, prison and masked enforcers to the town of Halstedom. Although Ghat, the facial tattooed and overly punchy protagonist of the first game, was directly responsible for bringing Golem to Halstedom, he has now been recruited by his only other human sister, Rimat, to bust

FatherMother out of Golem's prison, so that the family can be together once more. Apparently Ghat now realises that he loves FatherMother and his family (whom he spent the previous game trying to kill) and doesn't like how bossy Golem is, so wants to punch him. If you're thinking that Zeno Clash II sounds like the only game ever made based on weaponised Stockholm syndrome, you'd probably be right, but this is only the tip of the weirdness presented in this return to the bizarre world of Zeno Clash.


To call the family a bunch of freaks would be unkind – they're far too odd to compare to your

to have been put through some rather rough translation and the voice actors being the most professional bunch, the resulting dialogue swings wildly from clumsily odd to spellbindingly obtuse, more like beat poetry than any kind of coherent narrative.

The overall effect is kind of beautiful and fits well in the expanded world of Zeno Clash. Each area of the world is beautiful and strange in its own way, whether it be a forest of trees that obviously had a "Socko the Clown" inflatable punching bag somewhere in its genetic heritage, or a mountain held up by giant marble hands. Zeno

introduced a few new travel mechanics and ideas. Teleporters allow for quick travel between areas, but they remove the joy of just existing in and looking at the spectacularly bizarre world, and the journey that took the entire game to accomplish in the original game can be completed in a handful of minutes. The intention was to make the world seem more expansive, but teleportation and the ease of travel have nearly the opposite effect.

The first-person fighting engine has been far more successfully expanded, with Ghat being able to pull off a number of moves ranging from simple punch combos through to juggles, clearance moves and defensive counters. It's a fairly robust combat system but one that doesn't feel particularly at home with mouse and keyboard controls. Zeno Clash II feels more fluid when played with a controller but even so there are definite problems to be seen, including a wildly erratic difficulty level, some iffy collision detection and companions who seems just as likely to punch Ghat as they are to strike an enemy.

Despite the flaws, Zeno Clash II is still a compelling experience, if only for the joy that comes with seeing the next spectacular vista or talk to the next lovably creepy oddball. The punching is fun but it's really not the main draw of the game – if you have a firm appreciation of the strange, this is a game for you. **DANIEL WILKS** 

"Companions seem just as likely to punch Ghat as they are to strike an enemy"

garden variety circus performers. Within the first hour or so, players will meet the first missing brother, Pott, an stocky man who wears a pot on his head and looks as though he has partially melted. Pott, upon discovering that his birth parents were long dead, decided the best course of action would be to pack their remains into a backpack so he can be with his parents wherever he goes. Pott is one of the most rational characters players will meet over the journey.

Every character you meet is warped in some sense, both physically and mentally, but thanks to the script appearing

Clash II initially appears to present much bigger world than that of the original game but after a short while the levels start to feel a little claustrophobic thanks to Ghat being incapable of crossing any obstacle higher than an ant and the fact that exploration isn't overly rewarding, only really presenting players with the occasional chest or collectible to find. The quality of the level design is also rather erratic. For all the stunning scenery there are also some shockingly low-res textures and parts that just look entirely unfinished.

In its effort to make the world a larger pace, ACE Team has

WHY SHOULD I CARE

- You were kidnapped as a baby by a supposedly hermaphroditic bird thing
- Your favourite method of communication is FIST!
- You carry around your parents remains in a backpack so you'll always be with them

OR TRY THIS



ZENO CLASH
ACE TEAM • 2009
 Just as weird
 Just as weird



CHRONICLES OF RIDDICK: ESCAPE FROM BUTCHER BAY
STARBREEZE/TIGON • 2004
 Riddick is a genuine badass
 With only two games to his name



CONDEMNED: CRIMINAL ORIGINS
MONOLITH • 2006
 Punching serial killers is fun
 Bum Fights the game

VERDICT The plot, setting and characters are wonderfully strange but the rest of the game feels more than a little unpolished.

6



CHAIN GANG

1. In addition to his fists, Ghat can use a range of special weapons including bombs, hammers and guns, each of which has unique special abilities.
2. The chain, for example, is good for wide range attacks that can hit multiple targets as well as for breaking shields.
3. Ghat has three resource bars – Health, Special Attacks and Stamina. All attacks consume stamina ensuring that players can't simply spam punches.
4. Players can summon AI allies to fight by their side. Sometimes other characters appear to fight as well, like FatherMother in this early storyline battle.
5. Aside from the enforcers, nearly every enemy you fight has their own individual name and appearance.
6. Attanjas is totally about to have his stupid bearded face introduced to a length of chain.

Before each big scripted fight, players can summon henchmen to fight by their side. Be careful not to get in their way.

Ghat's preferred method of communication is FIST! He likes punching so much that most of the other characters comment on it.



The Corvid are single minded maniacs who all obsess about a single thing. They're the most fascinating and bizarre inhabitants of Zenoziolk.

STICKS AND STONES



1. This is Pott. He is Ghat's slightly melted brother and carries his dead parents around in a backpack. You need to recruit him to fight...



2. ...Golem the golem. He is trying to bring civilisation and "order" to Halstedom. He has no chin and must be stopped in order to free...



3. ...FatherMother, the hermaphroditic bird thing who kidnaps children. Got it? Good. Let the punching commence.

Defiance

S01E01MMOTPS

DEVELOPER TRION WORLDS
PUBLISHER TRION WORLDS
PRICE \$59.99
AVAILABLE AT STEAM, DIRECT DOWNLOAD, RETAIL
www.defiance.com

Sometime between its PR preview phase and release, Defiance morphed from a massively multiplayer third-person shooter into a “persistent online third-person shooter”. It’s very important to keep that in mind when playing – if you expect World of Warcraft with phasers, you’re going to be disappointed.

It’s not an easy distinction to make when you initially enter the game’s alien-probed version of San Francisco. The map reveals dozens of glowing quest markers, and they all follow rudimentary MMO design – flip a switch here, escort an NPC there. Main story missions include fully-voiced cast members from the TV show, with short cutscenes helping to deliver a more cinematic approach than most massively multiplayer “whatevers”, but the mission structure is as basic as it gets for an online game.

Thankfully, the method of interacting with the world is not. This is a true third-person shooter, where your ability to blast everything around you is tied to how well you can aim and take cover. There’s no lag-shielding combat system based around stats as found in MMOs; pull off the perfect headshot and your target’s head will indeed explode. While the quest design is generally boring, the massive range of weaponry and the various AI behaviours help to keep the repetition tolerable. Heck, the combat can even



Every player starts with a free mount in the form of an ATV, which can be upgraded into full on Mad Max 4WD. It’s a good thing, as you’ll often have to drive over a kilometre between quest markers.

“There’s no lag-shielding combat system based around stats as found in MMOs; pull off the perfect headshot and your target’s head will indeed explode”

be downright satisfying as the challenge ramps up, and it’s this hook that kept us blasting away for the first 25 hours.

Obviously this type of combat requires more megabits than a traditional MMO can handle, which is why you’ll rarely see more than a few dozen people around you at once, hence the persistent online moniker instead of massively multiplayer. Even during the game’s Arkfalls, a spin on Rift’s public events, it’s rare to see more than 50 others

battling the giant mud crabs. You don’t even get to choose a server most of the time, with the game lumping you into the most appropriate instance that it sees fit. We’ve yet to see how this impacts with playing with friends, though if it’s like other instanced games it should teleport you to the same region.

While the combat is refreshing, sadly the lack of love behind the PC port is not. We can’t remember ever seeing a chat system as broken as Defiance’s, and it’s a huge

step backwards in the visual stakes compared to Trion’s other beauty, Rift.

Despite the many flaws, we’re hopeful that Defiance can come good. The core combat is solid if not amazing, while the TV show tie-in is an exciting experiment in transmedia storytelling. If Trion can deliver the level of polish that made Rift such a great game, not to mention spice up the quest design, Defiance could become a uniquely entertaining online world, even if it’s not a true MMO. **BENNETT RING**

WHY SHOULD I CARE

- There’s no other persistent online third person shooter like it
- Hopefully the TV show evolves into something a little more entertaining than the pilot episode, giving us a world we care about
- The core combat is satisfying and unique for an online world

OR TRY THIS



BORDERLANDS 2
GEARBOX • 2012
■ Even better post-apocalyptic combat
■ You and three others, max



GRIMLANDS
DRAGO • NEVER, EVER
■ A true MMORPG crossed with a shooter
■ Totally cancelled. Twice!



APB: RELOADED
REALTIME WORLDS • 2011
■ Cops and robbers in an online third person shooter
■ Well, it’s kinda crap still

VERDICT Despite its rough edges, we’ve had much more fun than expected. If Trion can introduce better quest design, this will be a winner.

6

ShootMania Storm

I looked around, and I knew there was no turning back

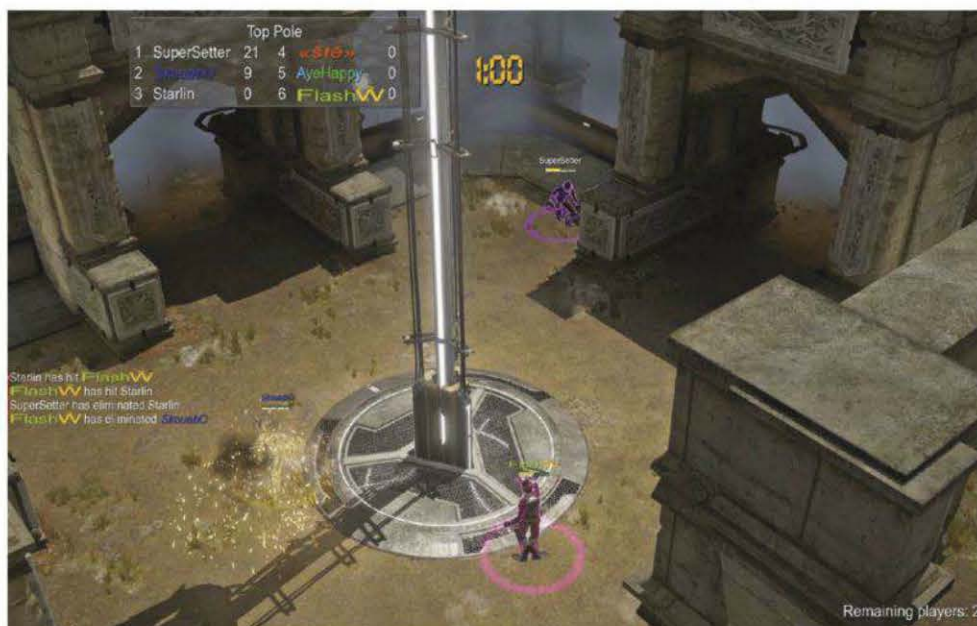
DEVELOPER NADEO
PUBLISHER UBISOFT
PRICE \$19.99
AVAILABLE AT STEAM, DIRECT DOWNLOAD
www.maniaplanet.com/shootmania

Since the dawn of time, man has journeyed on a self-appointed quest to create the perfect competitive shooter, probably. We don't have much in the way of evidence to support this outlandish assertion, but we're fairly confident that, were it true, Nadeo would have us all believe that quest was at an end. The question then remains, did the studio return with the Holy Grail, or merely the tails of several large rats from someone's basement?

ShootMania Storm seems at least to be cup-shaped; appropriate, given its clear attempt to push into the eSports market. The way each map is built, the way each battle plays out, the ability to capture replays with the click of a button and then edit them using in-game tools; it's all geared towards supporting a spectator sport.

The game types available are likewise competitive mainstays of the FPS genre. Free-for-all, capture points, team-based 3v3 and 5v5, everything one could want in competitive FPS is here. And if it isn't, Nadeo has shipped the game with an extremely comprehensive suite of basic and advanced editing tools. Using the basic map editor, and having never used it before, we had a playable (albeit very silly and questionably designed) 1v1 map created in under half an hour.

Those more dedicated to the cause can very easily use the greater range of customisation



The Royal game mode. A whirlwind of death forces players into the centre of the map until one is left standing.

“ShootMania Storm continues the strong community focus established by Nadeo’s TrackMania series”

options available in the advanced editors to tweak their games to their heart's content. With the ability to build maps, game types, and promotional trailers, all from within the game's toolset, ShootMania Storm continues the strong community focus established by Nadeo's TrackMania series.

Like TrackMania, it can be an absolute blast to play. There's a simplicity, a purity of form, to its mechanics that's reminiscent of early Quake multiplayer. The player's primary

weapon is a rocket-launcher-esque contraption, requiring rapid spatial calculations taking into account projectile travel time, enemy distance, vector and velocity. With a minimum of two shots to kill and unlimited ammo on a timed weapon recharge, battles quickly get tense and frantic.

Wrapped up in ManiaPlanet's global ranking systems, it's very easy to see how this game could become an obsession, with PC gamers ever chasing higher positions on the ladder in their

state, country and the world.

On the downside, ShootMania Storm's local community is comparatively small – international servers have international pings and associated lag. It's also one of those games that even if “you like this sort of thing” you still need to be in the right mood to enjoy it, or unshakeable losing streaks and frustration can set in. We found it's just not a game we want to play all the time.

For us, Nadeo's quest will only be over when it follows through with the next game in the series' natural progression, and puts ShootMania's weapons on TrackMania's cars. DeathRallyMania! **TERRENCE JARRAD**

WHY SHOULD I CARE

- You're excited by eSports
- You remember multiplayer Quake.
- You remember the first time you rocket-juggled someone multiplayer Quake. No that's not a euphemism

OR TRY THIS



QUAKE
ID • 1996
The birthplace of multiplayer mayhem
Brownie brown McBrowntorn



QUAKE LIVE
ID • 2010
Free, browser-based fun
Anyone still play this?



COUNTER-STRIKE: GLOBAL OFFENSIVE
VALVE • 2012
Refinement of the classic formula
Frequently losing to 12-year-olds

VERDICT A return-to-roots competitive FPS romp, let down a little by its niche target audience and our smaller local community.

6

Dishonored: The Knife of Dunwall

Last Man Stabbing

DEVELOPER ARKANE
PUBLISHER BETHESDA
PRICE \$9.99
AVAILABLE AT STEAM
www.dishonored.com

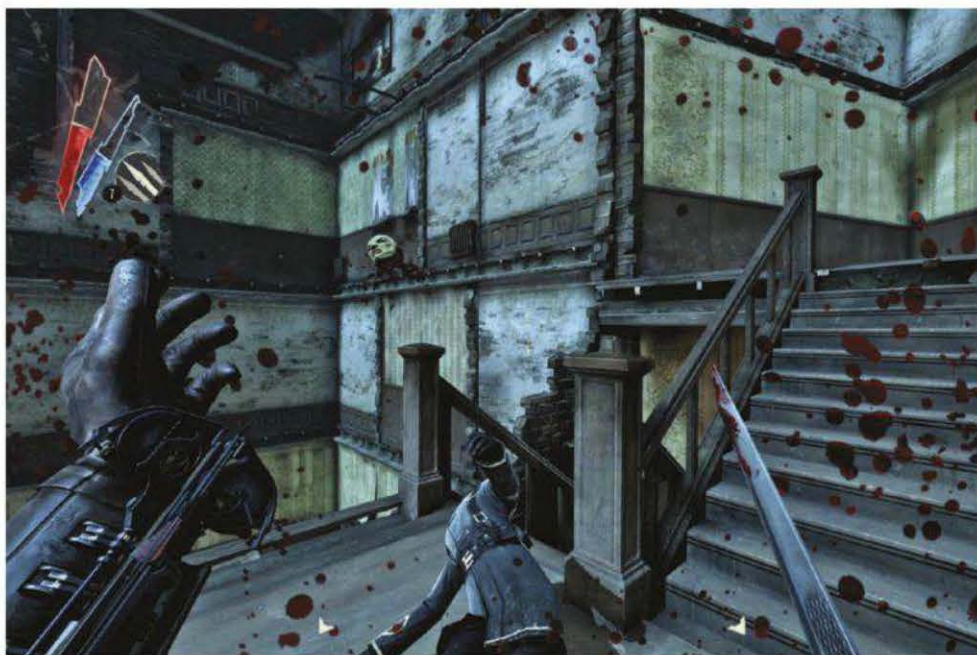
Off with his head! The return to the Flooded District plays out by having Daud cut his way through the level in the reverse of Corvo's route.

The Knife of Dunwall is Arkane's first story-based expansion pack for Dishonored, bringing three full levels to explore rather than Dunwall City Trials' more abstract contests. It's the perfect time to return to the plague-ridden city as, after blasting our way through BioShock Infinite's Columbia, it's nice to go back to a game environment that feels like an actual place and not a stage production.

You'll be slipping into the boots of supernatural assassin Daud this time around; the man who set in motion the chain of events that led to Corvo's own jaunt through the city's seedier establishments. Daud is a much nastier man, as emphasised by his new items, abilities and brutal kill animations. There's enough of a balance between Corvo's familiar black magic and Daud's new ability to summon assassins, lay arc mines and blink whilst freezing time to make for an accessible yet distinct play experience.

But three missions simply aren't enough to absorb yourself again in Arkane's world. It is a pleasure to return, but it's also sad to leave it so soon all over again. The Knife of Dunwall also attempts to compress Dishonored's high and low chaos concepts over this three-mission period, and it's not enough time to feel like the changes are propagating naturally.

As individual levels, two the missions on offer are



"There's a balance between Corvo's familiar black magic and Daud's new ability to summon assassins, lay arc mines and blink whilst freezing time"

well-crafted, despite the plot threads leading from one to the next being stretched thin. The slaughterhouse is easily the highlight, with new enemy archetypes with and a plethora of solutions to the main objective. The Legal District is, surprisingly, the return of an environment Arkane developed early on but cut from the final game. It offers some of the most impressive verticality outside of Kaldwin's Bridge, with a pitched infiltration of a

four-storey mansion serving as a satisfying climax.

The final mission is disappointing for its environmental re-use, as we once again crawl through Daud's base of operations in the ruined Flooded District as it in turn crawls with enemy combatants. The conclusion itself lacks drama or significance, as The Knife of Dunwall is only the first half of a complete whole – with the story to be concluded in the next DLC, The Brigmore Witches,

later this year. We hope it's not going to be significantly later.

Arkane has worked in an element of self-awareness to the guards' banter, and some of Daud's new items offer a much-needed expansion of game's non-lethal options. In these respects, it feels like Arkane is at least attempting to address some of the smaller criticisms of the main game, but it has done so in a package that ultimately feels too small to be whole. **DANIEL HINDES**

WHY SHOULD I CARE

- It's more Dishonored
- With a few different powers and items
- You want a bit of a cleanser after BioShock Infinite
- You can get face to face with a live whale

OR TRY THIS



THIEF GOLD
LOOKING GLASS • 1999
Sneaky-stealy
Pagan stuff. Terrifying



HARPOONED
CONOR O'KANE • 2008
Japanese Cetacean "Research" Simulator
Won't someone think of the whales?



SURGEON SIMULATOR 2013
BOSSA STUDIOS • 2013
Who needs a knife...
...When you've got a hammer

VERDICT Some great level design and new abilities await those who take this welcome return to Dunwall, but we wish the visit lasted longer.

8

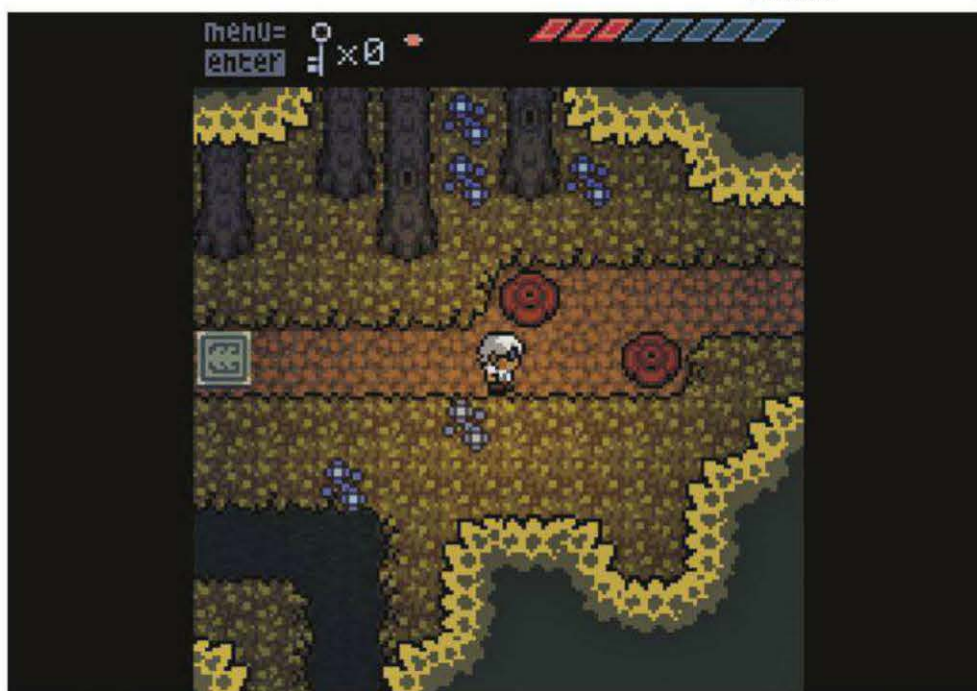
Anodyne

A heady mix of whimsical humour and disturbing horror

DEVELOPER SEAN HOGAN AND JONATHAN KITTAKA
PUBLISHER ANALGESIC PRODUCTIONS
PRICE \$9.99
AVAILABLE AT STEAM, GOG.COM
www.anodynegame.com

Anodyne a top-down adventure in the vein of a Legend of Zelda game that takes place within the subconscious of a 20-something named Young, whom you play as, using your broom and your wits to fight enemies and explore the land. I don't believe I've played a game quite like Anodyne, with its oddly mixed pacing, is at once laugh-out-loud funny and then terrifying or just uncomfortably strange. After defeating the boss of the first dungeon, the light fades in the arena and only two torches are seen flickering. And then, out of nowhere, a text box pops up with "I will be with you, Young, whenever you are alone". Then I read a rock which told me I had no friends. About an hour after that I was exploring a beach when a lobster-man-thing shared some wisdom with me.

These moments – some silly, some poignant – have stayed in the back of my head in the weeks since writing this review, and they will for some time. On the surface it's a love letter to the 16-bit action/adventure games from the glory days of console gaming. However, Anodyne was created by two 20-year-olds, who grew up after the SNES-era. Anodyne is not so much a labor of love, but a reimagining of how this genre can be used. The plot was seemingly a huge mash of strange psychoses as you literally explore the main



The Forest had no real content to speak of, but I wanted to explore every screen all the same.

"An hour after that I was exploring a beach when a lobster-man-thing shared some wisdom with me"

character's subconscious, but for the most part, it works. Whether it was through the natural instinct to explore, the adaptability of the 16-bit pixel art or the amazingly atmospheric music – no matter how disturbing and weird some moments became, it was always a deeply immersive experience. For instance, instead of the standard Water/Fire/Forest temples, there was the Temple That Touched on Possible

Child Abuse and the Dungeon of Adolescent Angst and the incredibly terrifying Tragic Circus Accident Themed Temple.

Touching briefly on the development, Sean Hogan and Jonathan Kittaka made Anodyne from the ground up while they were still in college. From the art and music, to the programming and design – it's incredibly impressive and not a little bit intimidating a feat. They also marketed themselves through

The Pirate Bay, supporting the torrent themselves, with the justification that people were going to pirate it anyway, at least they could ask that everyone pitch in if they had the money.

I'm not saying Anodyne delivered perfectly. There were serious issues around pacing and direction. Also, some areas felt completely out of place, with no tangible point other than to spout somewhat pretentious ponderings on the nature of existence. Yet I will favour a game which tries to achieve something interesting and falls short rather than a game which perfects mediocrity. ZAC NAOUM

WHY SHOULD I CARE

- You're in a gaming rut and want to try something different. Sit down for a few hours with Anodyne and experience something new
- Two people made Anodyne with less than a fraction of what triple-A gaming development teams see in a week – support quality of time used rather than quantity of money spent

OR TRY THIS



SUPER MEAT BOY
TEAM MEAT • 2010
Puzzle-platformer love letter
Infructuously difficult... in a good way



EVOLAND
SHIRO GAMES • 2013
The history of action-adventure
Fairly short



PROTEUS
ED KEY, DAVID KANAGA • 2013
Is it a dream too?
I want to go home now

VERDICT Anodyne falls between average and perfection, offering a strange, funny, horrifying few hours of old-school action-adventure.

7

Dead Island Riptide

Hide your kids, grab your wife, better get outta sight

DEVELOPER TECHLAND
PUBLISHER DEEP SILVER
PRICE \$69.99
OFLC R18+
AVAILABLE AT STEAM, RETAIL
deadisland.deepsilver.com

Controversy! Shenanigans! The original Dead Island promotional trailer seemed to promise a story driven experience, the actual game was instead action-based. Borderlands-does-zombies.

Following its release, some enterprising individual digging around the game code managed to find, commented-out, an allegedly original and sexist name for one of the character skills: "Feminist Whore".

Then recently for Riptide, Deep Silver announced a collector's edition featuring a bikini-clad bloody female torso statuette, head and limbs obviously hacked off. The outrage following it forced an apology and apparent retraction by Deep Silver, though the publisher didn't seem sorry enough to actually go ahead and cancel the edition because it still went on sale in stores.

It's understandable that some might have a moral objection to purchasing, in the wake of these events, but luckily it shouldn't be much of a quandary because Riptide just isn't that good.

Don't get me wrong, I liked Dead Island. I felt as though I could see where Techland wanted to take it, and though it didn't quite get there, the effort was worth commending. That said, the game was not without its problems. A number of bugs held it back technically, its overall mission structure was very much fed by a fetch-quest formula, and combined with the rapid zombie respawns and weapon degradation, general gameplay teetered precariously on

the edge of grind.

Now that over 18 months have passed since the first game's release, Techland has had ample time to refine and tweak, to polish the game until it gleams, right? Erm... it seems not.

Not only has Riptide not been polished, refined or tweaked, it seems nothing has changed. At all. Okay that's not entirely fair: there's a new character to play, some new enemy types, and new survival/defence game mode, and players can tool around in boats as well as cars now.

Movement is as awkward and clumsy as in the first game, quests are again nothing more than the fetch variety, zombies are never-

to give the edge it implied it would, that new special weapon, now upgraded and modded, somehow has only the most marginal of damage increases.

It's not an easy thing to balance. Give the player too much of an edge and the game becomes too easy, not enough and progression is difficult. Riptide suffers from neither of these, but the ensuing sameness, no matter where in the game the player is, and regardless of their weapon choice, adds to the overall feeling of grinding repetitiveness.


Compounding the design problems are technical ones; foremost amongst these is a potentially game-breaking audio

of headphones experiencing this problem are some of the biggest names in gaming audio – Logitech, Razer et al – it absolutely boggles the mind that his bug was not squashed 18 months ago.

And yet... despite all this, I can't help liking Riptide. The constant challenge of the players never being able to dominate their enemies provides tension. This is survival horror of a sort, after all, and keeping the player fearful, afraid of being surrounded, overrun, surprised, is the key to making the genre work.

Experience gains and rewards from quests are generous enough that there's always something to do; whether that's upgrading and modding a new weapon, organising the weapons loadout to maximise damage output in the coming battles, or agonising over the best choice of skill from the varied skill trees after hitting a new level.

As with any game designed around co-op, playing with others yields the best rewards. Enemy density scales with party size, and the additional pairs of eyes helps keep rotting zombie hands off each other's backs. It also speeds up the questing process and helps alleviate the boredom of repetition.

As a full-priced game, this not-sequel is hard to justify. Dead Island was something of a novelty; a new-ish take on survival horror, a co-op experience evoking a Left 4 Dead meets Hellgate: London vibe. Riptide is the same game, sans the novelty, and will only appeal to those dying for more Dead Island. **TERRENCE JARRAD** 

"Not only has Riptide not been polished, refined or tweaked, it seems nothing has changed"

ending and seem to respawn as soon as the player loses line of sight. Getting from one set of buildings to the next when all you want to do is turn in a quest can seem like a chore, and while the story continues from where Dead Island left off it's also somehow less interesting.

Worst of all – and this was my biggest issue with the first game – is that it still never feels as though the player gains the upper hand. Just like Oblivion's global levelling system where the enemies levelled alongside the player, zombies in Riptide remain suspiciously powerful. That newly acquired skill point doesn't seem

bug present for anyone using USB headphones with surround sound. Loud static, snaps and pops, hisses and screeches terrorise the eardrums. Unforgivably, this issue was present and has been neglected since the first game (though I had different headphones then), and I spent approximately six hours trawling through forums, pasting audio file configurations into my game directory, running the game and having my ears brutalised before quitting and reconfiguring and repeating the process all over again.

I managed to solve the issue by using some earbuds plugged into the soundcard, but given the types

WHY SHOULD I CARE

- You got a zombie army, and no-one can harm you
- You drink blood like a vampire without warning
- You got the thing that go bump in the night
- You don't object to being called a bitch for practicing voodoo

OR TRY THIS



DEAD ISLAND
TECHLAND • 2011

- \$20 and virtually identical
- Did you even read this review?



HELLGATE: LONDON
FLAGSHIP • 2007

- The original co-op FPS loot-em-up
- Studio went bust



BORDERLANDS 2
GEARBOX • 2012

- Better than Borderlands 1
- Hellgate wannabe

VERDICT Offering very little progression on Dead Island, this is one for the fans. Series newcomers should get the cheaper original instead.

5

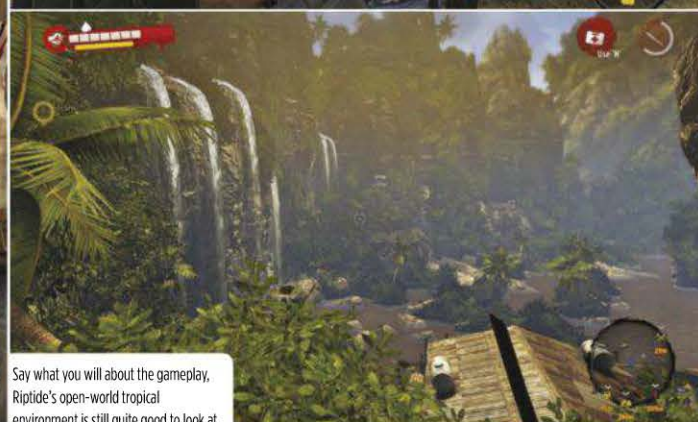
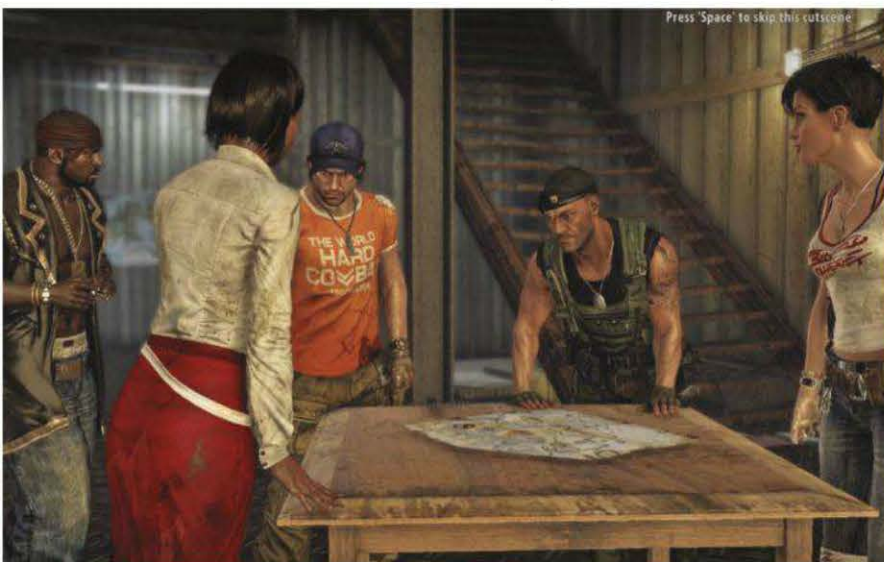


I'M A BOOGEYMAN BEAST

1. This is a boss encounter with Mutated Wayne. He's walked over a mine I placed and is taking 384 fire damage per tick.
2. My fearless online companion, Tox, currently wrestling with one of the standard zombies that also form this encounter.
3. A jet of steam enabled from nearby valves. Does massive damage and without it Wayne would take about a year to bring down.
4. The bright C shape is the fury meter, the yellow bar is XP until next level, and the remaining white/red bar is health.
5. Here's a dead zombie we prepared earlier. The hand icon means he has some sweet loot, usually weapons or cash.
6. This shows I have health kits I can use, and which weapon is currently equipped. Fists aren't the best choice.

That shotgun is a quest reward, but unfortunately its damage doesn't come near that of the AK currently equipped.

The gang discuss their next move. Apparently it involves using tunnels built by the Japanese in WWII.



Say what you will about the gameplay, Riptide's open-world tropical environment is still quite good to look at.

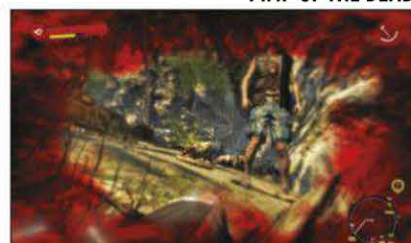
PIMP OF THE DEAD



1. I'm doing some serious damage with critical strikes that are also breaking this zombie's bones.



2. Activating my fury ability to help take down the damage-soaking Thug. I should be fine if I stay away from his swings.



3. Ugh. Killed again. I'll lose about five grand in cash and re-spawn fairly close by to have another shot at him.

Starseed Pilgrim

The first game to [SPOILER] without sacrificing [SPOILER]

DEVELOPER DROQEN
DISTRIBUTOR DROQEN

PRICE \$6

AVAILABLE AT Steam, Direct Download

www.starseedpilgrim.com

Don't read this review. No seriously - it's a massive spoiler. Saying anything at all about Starseed Pilgrim is a massive spoiler. Even telling you the game exists spoils the experience of discovering it buried in the news feeds of the hypertubage's more precocious and self-aware gaming blogs. Or possibly even vlogs.

So stop reading. You're still reading? Are you saying that when people suggest a game is so amazingly avant garde that to even describe it in basic terms ruins the experience, are you saying that's maybe just a little bit too, I dunno, bloody precious? You think no mere game could possibly live up to that kind of histrionic, espresso-sipping, thin-jeans wearing, cool-when-it-wasn't-cool-vintage-non-prescription-chunky-glasses... uh... where was I going with this?

Okay so what happened, in case your internet is broken, is that Droqen made himself a bunch of little games and bundled them all into a bundle and one of the games was Starseed Pilgrim and somehow indie celebs like Jonathan Blow got a hold of it and, I guess, just completely lost their shit. They proclaimed it as the greatest, most revolutionary game ever and made mystic pronouncements about it like: "As long as you have questions, continue."

And yes, Starseed Pilgrim is a very interesting exercise in game design where you have to

play in order to learn how to play. Strip away all the froth - most of which has been applied by other people - and you're left with a neat little puzzler where the aim is build a pathway to a key to unlock the level. Sort of. Mix in a bit of resource collecting and different "seed" behaviours and you're left with something that's part reverse-Tetris (more blocks stacking up equals better!), part those platformers where when you slap the button at the end of the level you have to race back through the level before the bomb goes off. Again, sort of. Not really. Kind of the opposite of that actually, but then again...

Thing is though, take away

a few hours with this thing I was left with the impression that someone, somewhere, is perpetrating a gigantic hoax. Mind-twisting future of gameplay? This is a cute little Flash game, and you know what, I think Droqen probably designed it as such. That the indie community has latched onto it as the greatest thing since Braid probably has less to do with exactly how great the game is, and more to do with the fact Braid's creator said some wildly optimistic things about how Starseed Pilgrim should be the future of game design. Or whatever. Sort of.

Okay, so there's two types of

"Indie celebs like Jonathan Blow got a hold of it and, I guess, just completely lost their shit"

the obfuscation of the rules, and the game is a quirky puzzler like every other indie thing. You do need to think ahead a bit, but there's plenty of repetition and frustration, and also random mixing and randomised behaviour of some game elements, so doing exactly the same thing twice won't give exactly the same results. Also, you can't initially see your goal, but once you know the goal is there that can lead to repeated screams of "DAMNIT I GUESSED WRONG AGAIN!" Or can it? Sort of.

As you play you discover more game dynamics, but after

game now, right? The interactive movie with the plot and the art and the famous actors making pin money, maybe with some multiplayer stuff too, or RPG elements. And then there's the other type, where the mechanics of play are the main thing, the main reason for engaging with it at all. This type of game - of which Starseed Pilgrim is most certainly an example - is fun because you like the way all the bits and pieces work together. It's more like a board game, an exploration of dynamics. Though of course a computer's ability to animate things and shuffle numbers

means it can do a lot more than a board game ever could.

All games used to be like this, to different degrees. When all developers could make was a 2D platformer, the fun came from mixing up the mechanics. The difference between Bitmap Brother's Gods and the original Prince of Persia is much greater than the difference between Bioshock Infinite and, say, Metro: Last Light, I'd argue.

What I'm saying is that people have been blindsided by Starseed Pilgrim's reasonably original gameplay dynamics, and have mistaken confusion at the lack of explicit instructions with a sense of awe and discovery.

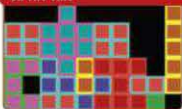
Hell, back in the 1990s EVERY game was like this, because every game came on a set of 3.5" floppies with the name written on in Biro in your uncle's handwriting. There were no manuals, except to get past the copy protection and we certainly never READ them. For me, playing Starseed Pilgrim reminded me of playing Thexder or Starquake for the first time. Mash. Scratch head. Die.

The harshest comedown? The longer you play Starseed Pilgrim, the more its gameplay becomes normalised. And without that sense of WTF, the game is what it is: a neat Flash-based puzzle builder thingie. A novelty item. Droqen's original vision for it - as part of a \$10 pack of indie curiosities - was probably the right one. Sort of. **ANTHONY FORDHAM** 

WHY SHOULD I CARE

- You're a superior son-of-a-bitch aren't you?
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- There just wasn't enough vague mysticism in Braid
- I AM AN SMART ARTIST DOING THE ART

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SPACE GIRAFFE

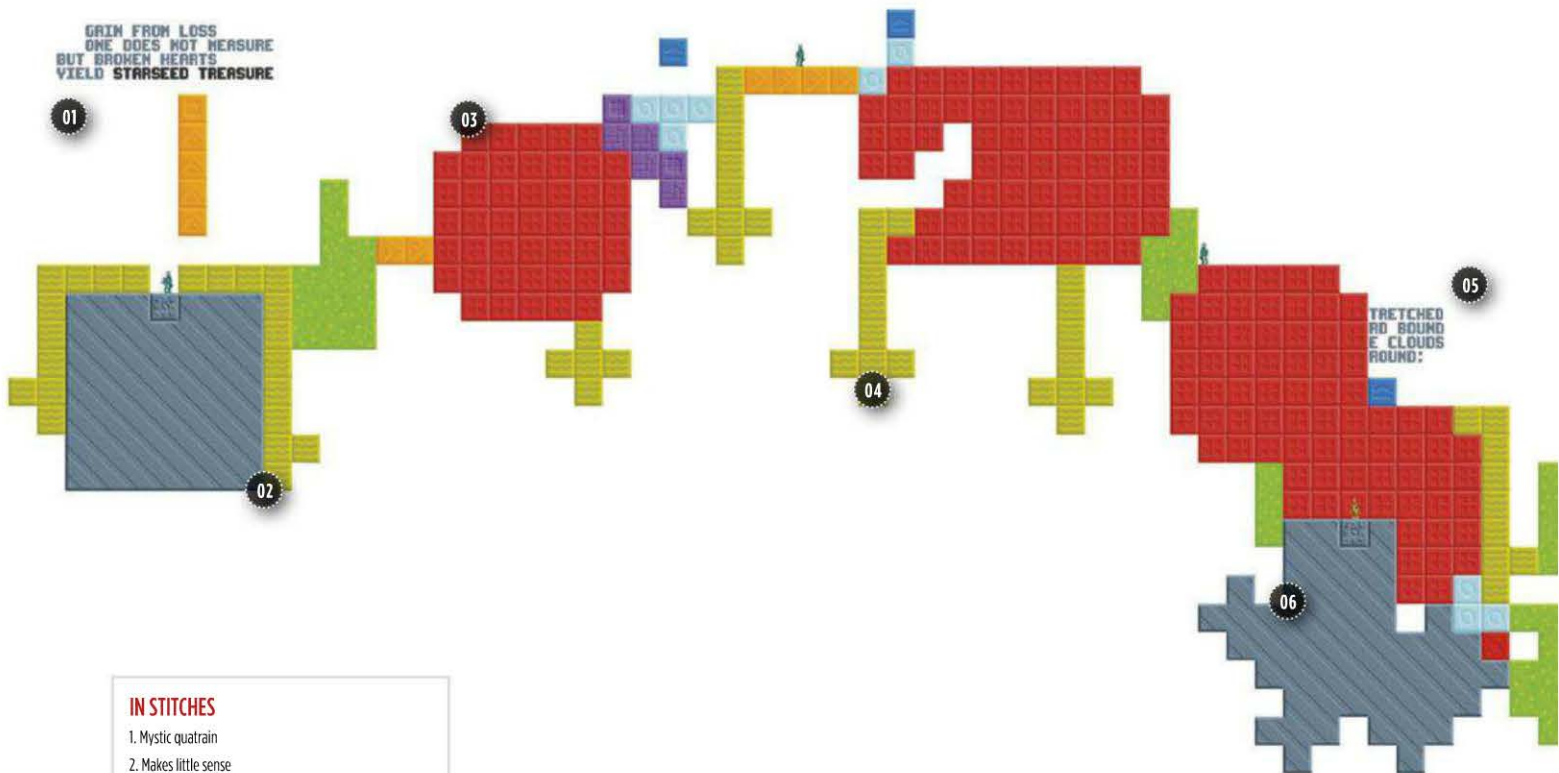
2008 • LLAMASOFT

- If you understand it, you'll like it
- You probably won't understand it

VERDICT Like an oboe, this game gets ruined in the playing. Well, a bit.

7

RAIN FROM LOSS
ONE DOES NOT MEASURE
BUT BROKEN HEARTS
YIELD STARSEED TREASURE

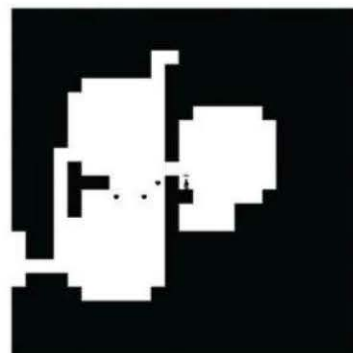
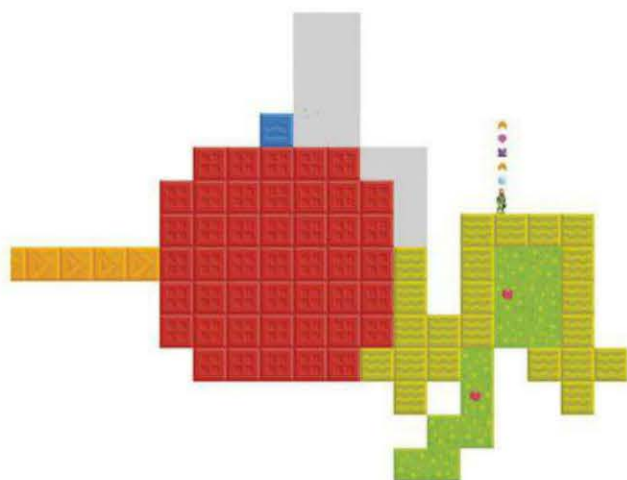


IN STITCHES

1. Mystic quatrain
2. Makes little sense
3. It must be deep
4. Coz: present tense
5. Descriptive notes
6. Got cut in half...

When is a tree not a tree? Simple: when it's
[SPOILER].

If you can't intuit the whole game from this one
screenshot then you're a STUPID STUPIDFACE.

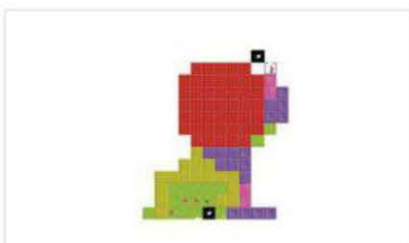


I think I might have the
gamma adjusted wrong...
oh no, it's just [SPOILER].

[SPOILER]



1. Okay so since everything is a spoiler I can't tell you what this is or
why the ground is brown.



2. I can't explain this because spoilers. I can confirm that the red area
is indeed red. Note the green. Not that green, the other green.



3. After you've [SPOILER] you'll need to [SPOILER] but watch out you
don't accidentally [SPOILER]. End of level one! Sort of...

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100 Accessible Gaming

Behind the design of disability-conscious gaming



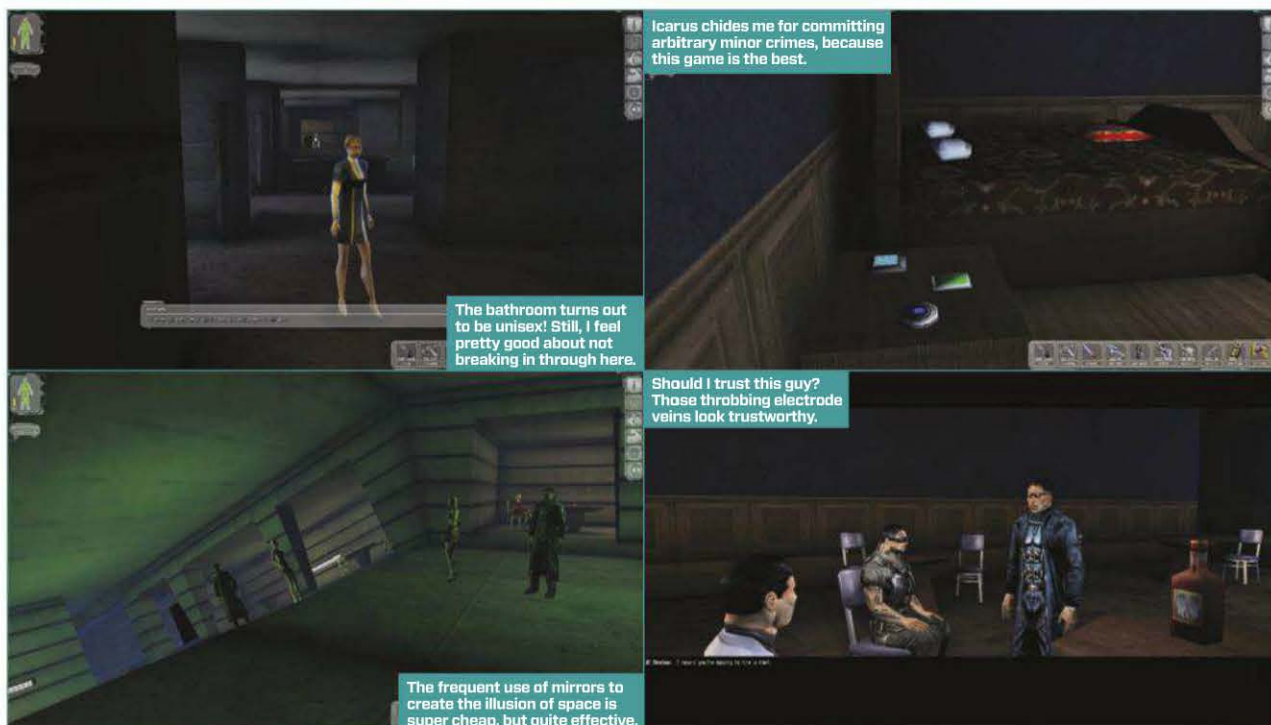
102 Probability Unknown

Is Firaxis' XCOM reboot truly random?



104 Extended Memory

Putting a face to the Nameless One with Planescape: Torment



Deus inExperienced

Part 9: To Paris, With Love

JAMES O'CONNOR has never been to Paris, but it seems nice (terrorist government takeover aside)

Consider, for a moment, some of the criticisms made about Bioshock Infinite's pacing. The opening few hours of that game are wonderful, combining action with exploration, mixing gunplay and character work expertly. Columbia feels truly open, until the game shifts its focus to dark skies and massive shoot-outs down fairly straight paths. I came away from Infinite with a slightly bitter taste in my mouth, a taste that my jaunt through the streets of Deus Ex's Paris helped to properly identify. After last month's complaints, here is a section of the game where – astonishingly – I got away without killing a single person. 20 hours in, that feels significant.

The scenario that unfolds is wonderful. Leaving the Parisian sewers, JC suddenly finds himself in a neo-noir plot, working in the shadows around a corrupt government and making shady moral choices in hostels, bars, nightclubs and other people's apartments while searching for Nicolette DuClare, a dame with a troubled past and a whispered reputation. The temptation to have JC pick up a smoking habit is almost as strong as the desire to keep one's gun holstered.

Although I've said that I would love more 'safe' areas in Deus Ex, this level

proves that a small smattering of Majestic 12 can add an exciting pinch of danger to proceedings. There are few enough guards to make stealth viable, but the augmented guys and mechs mean that if you do manage to stuff up, it'll be a vicious battle. I commit my crimes away from prying eyes, first breaking into an apartment and stealing everything not nailed down, during which I overhear the tenants talking about the weapons dealer next door (a later

the back entrance rather than breaking in through the bathroom because I can see women's legs through the grate.

By the time I find Nicolette, I feel like I truly know the people of Deus Ex's Paris. Some drip with desperation and fear, willing to sell out their own children just for some piece of mind. Others have a streak of revolution about them, an eagerness that makes me feel important, while still others simply carry on as though nothing is wrong.

"Here is a section of the game where I got away without killing a single person. 20 hours in, that feels significant"

conversation in the nightclub reveals that the dealer is on holiday, but I know that I don't need to pay the shifty individual offering this information the credits he wants for their address).

I turn down an offer to become a drug thief on the advice of a nervous bartender. I ignore valuable information I'm given, not wanting to risk being spotted by guards. I break into the nightclub by stealing a key from the door guy, and choose to risk taking

Infinite may have been praised to high heaven for its story, but Deus Ex's world is a much more consistently ambitious storyteller than Columbia. As I fly away Gunther appears, running after the chopper as it takes to the air, and I love the game for choosing not to make a big deal about it. I acquired the man's kill code from an old friend no more than twenty minutes prior – it would have been a shame to break my non-killing streak there and then.

FUN FOR EVERYONE

Expanding the inclusiveness of gaming to those with disabilities

A lot has changed in computing over the past 40+ years. Formally the realm of bespectacled boffins in high tech labs, we now live in a world where most of us are carrying one or two computers on our person at all times, even if it's just our smartphone. As computing technology has been embraced by a wider range of people than ever before, so too has the audience for gaming grown. Yet, in spite of this, a number of people are consistently being left out of the fun – those with disabilities.

It doesn't take a great deal of empathy to put yourself in the mindset of a person with motor control issues, and understand how limited such a person's choices are when it comes to games.

Does it necessarily have to be this way?

The AbleGamers Foundation's editor-in-chief, Steve Spohn (himself a disabled

gamer with spinal muscular atrophy) doesn't think so; in fact, he makes it clear that games are actually getting better at inclusivity – “The game industry has been coming along by leaps and bounds in regards to accessibility. Just five years ago, most triple-A studios wouldn't even talk to AbleGamers. Today, AbleGamers has relationships with almost all triple-A publishers and developers, and many indie developers come to us for tips and tricks on accessibility.”

Ian Hamilton – an independent designer, consultant and disability advocate whose work includes coordinating the gameaccessibilityguidelines.com project – while agreeing with Steve's assessment of progress, cautions there's a considerable way to go, “Gaming is still a very long way behind other industries, such as web, construction, town planning etc. You just have to walk down any high street to see so many accessibility principles used as standard – drop kerbs; textured paving; traffic lights that use sound as well as lights and have a tint of blue added to the green light; ramps on public buildings; and so on.”

It isn't that developers are deliberately stymying the potential enjoyment of disabled gamers, rather it's that so many aren't aware that there are issues to address. Steve illustrates the pervasiveness of this awareness deficiency with an anecdote of speaking to

a StarCraft II developer about how easy it is to implement colour-blind modes – “The response we received from the developer was ‘Huh. That is a good idea. I never thought of it, and I'm colour blind.’”

Perceived cost is another concern.

“Cost versus potential reward seems to be a very large barrier,” notes Steve, “Until companies begin to understand that 33 million potential customers are waiting with disposable income for entertainment that can be brought straight into their homes, gamers with disabilities will still be ignored.”

“There just has to be a business case in place,” Ian adds, “You can then compare cost to develop against number of people who use it and how much those players are worth, and end up with a solid business case.”

“AbleGamers has relationships with almost all triple-A publishers and developers”

When asked what can be done, the response was surprisingly simple. According to Steve, the big three options that would go a long way to ensuring wide access are “remappable keys, colour blind options and subtitles.” three tools that go a long way to assisting in areas of vision, hearing and motor-skills.

Ian further points out that cognitive concerns should also be taken into account, suggesting they are the most underserved. “The big one is reading ability – dyslexia etc,” he explains, “People don't often know about how common low reading ability is because it is never talked about. Most people with low reading age lie about it because of the huge social stigma attached. But it's really common. It varies a bit by country but often around 14% of the adult population has a reading age of below 11 years old.”

Again, the solutions are simple: “Avoiding unnecessarily flowery language and using clear typography helps. But, more than anything else, just ensure that text prompts are dismissed on a button press rather than a timer. Really simple to do, and allows people to read at their own pace.”

What was surprising in my conversations

with both men was how hardware technology was frequently downplayed as a viable solution. “There are pieces of hardware out there for thousands of dollars, even tens of thousands of dollars that can significantly improve someone's ability to play videogames despite their disability,” Steve informed us, “However, most people don't have \$20,000 to enable themselves to play. And that's where the software becomes paramount. We need developers to make their games as accessible as possible without the need for hardware intervention.”

Ian agrees, pointing out that smart software design will find itself compatible with a variety of everyday assistive tools that are not gaming focused, “For example, if you can make a game that can be controlled by a single button press, that's then automatically compatible with a huge range of devices from a tube to blow into, to an infra-red blink detector. Even simple mouse only controls are compatible with eye-gaze systems.”

So, despite obvious growing awareness, why are accessible games still the exception rather than the rule? “What we're dealing with is wide-scale cultural change across a whole industry,” Ian begins, “In creative industries in particular there are less certain business models, so studios that have managed to stay afloat are pretty loathe to change how they do things – there's more pressure on maintaining status quo than in other industries.”

That said, both Steve and Ian appeared to exhibit hope for the future. Perhaps the most heartening thing of all is the way the problem is now viewed by the game community at large. “The biggest change has actually been the attitudes of fellow gamers,” Ian concludes, “Whereas a few years ago any comment from a disabled gamer about a feature they made would be met with huge protest by other gamers. Now, if a disabled gamers posts on a game support forum, they're met with almost universal support.” **NATHAN COCKS PC**





FIFA 13 was praised for its mouse only control option which proved a boon for amputees, and those with muscular dystrophy, cerebral palsy and MS.



Subtitles represent a cheap and easy to implement means of assisting the hearing impaired in properly appreciating what is happening in game.

One of the few positive stories about SimCity's release was its well-publicised graphic filters for those who are colour blind.

Dragon Age: Origins is something of a master class in accessible design that catered to visual, hearing, motor and cognitive disabilities.

FTL's colour blind mode proves that you don't need a big studio budget to make inclusive games.



XCOM: Probability Unknown

Part 4: The Firing Range

NEIL BROWN goes to the ends of the Earth to determine once and for all the true nature of randomness

A huge focus of this Probability Unknown series has concerned XCOM's random number generation. Many PC gamers claim — either seriously, or in jest because they are so frustrated with their luck — that it is broken. For science, we've been playing a lot of XCOM, and have been recording our shots. For every shot we actively took, we recorded the displayed chance of it hitting, and whether it actually hit or missed. (We ignored Overwatch shots because we couldn't see their probabilities, and also didn't bother with rockets and other later-game non-gun weapons). With over 1,200 shots recorded, we'll examine the data to see if XCOM is actually fair in this final instalment.

THE PSYCHOLOGY OF XCOM

Keeping this record of hits and misses in XCOM taught us a lot about the psychology of playing the game. The longest streaks of hits that we noticed in the data was an incredible 18 hits in a row, and another with 19 hits in a row, with the following percentage chances to hit:

Streak 1:

65, 93, 85, 97, 100, 100, 73, 100, 95, 73, 57, 73, 86, 89, 94, 96, 81, 82

Streak 2:

95, 63, 94, 95, 73, 58, 100, 100, 100, 86, 84, 95, 98, 85, 84, 73, 100, 90, 95

What's interesting is how we felt while playing the missions. We weren't sitting there shouting "amazing!" as hit after hit piled on. Both of the above streaks came in "very difficult" terror missions. In the first streak, all the aliens appeared on one turn, and we couldn't kill the Chrysalids faster than they were turning the civilians into zombies. We downed 20 enemies in all, and lost three of our six men because we were so overwhelmed. Even when we had amazing positive luck with our shots, we didn't even notice until we took stock of the spreadsheet after the mission.

On the other hand, here's a (much more likely) streak from the third game we started, from the first mission, where we missed our first six shots with percentages:

45, 45, 54, 45, 45, 45

We ended up losing two of our four men, and since it was the first mission, we restarted in disgust. You really do notice only

the negative streaks, and never the positive streaks.

THE FAIRNESS

Figure 1 is the best graph we could think of to represent the fairness of the random number generator. On the X axis is the stated chance to hit: the number that popped up in the box when we took the shot. We've grouped these into 5% bins, and then plotted a bar for each bin, showing how many of those shots actually hit. In an ideal world, with infinite data, the red line on the graph would pass through the tops of all the bars. It would actually be surprising if this happened exactly: it's called random for a reason, and with the small amount of points we have in each bin (around 60), it's likely that the proportions we observed are not perfectly in line with expectation.

That looks reasonably fair to us. We think that graph is the most comprehensible output you'll get, but "looks about right" is not very scientific!

SIGNIFICANCE TESTING

The problem with determining whether something is truly random is that you can never be sure. Theoretically, any string of hits and misses is possible in XCOM (except 100% shots missing), so you can never know for sure if it was a broken random number generator or bad luck. The best you can do is collect a lot of data, and see if it's an unlikely result, and then conclude whether you're confident that the data came from a random generator.

Here's the idea then behind testing for random generation. We pick the individual to-hit percentages, e.g. 65%, for which we have the most data (at least 20 shots). We then work out what the chance was of getting a result as extreme as the one we observed. If this chance is low (conventionally, 5% or less), the data is unlikely to have come from a random generator. For example, let's say that we had fired 25 shots at 85%, and all of them had hit. The chances of this happening is only 1.7%, so unlikely if the generator was truly random.

However: one complication to this method is that if we check several percentages,



Figure 1.

we are likely to find one that's extreme. On average, if we check 20 different percentages, we'll find one that we are 95% sure is too extreme. This is known as a Type I Error (an awful name!). To control for this, we can use a procedure known as False Discovery Rate... and your eyes are probably glazing over right now, so let's get to the result.

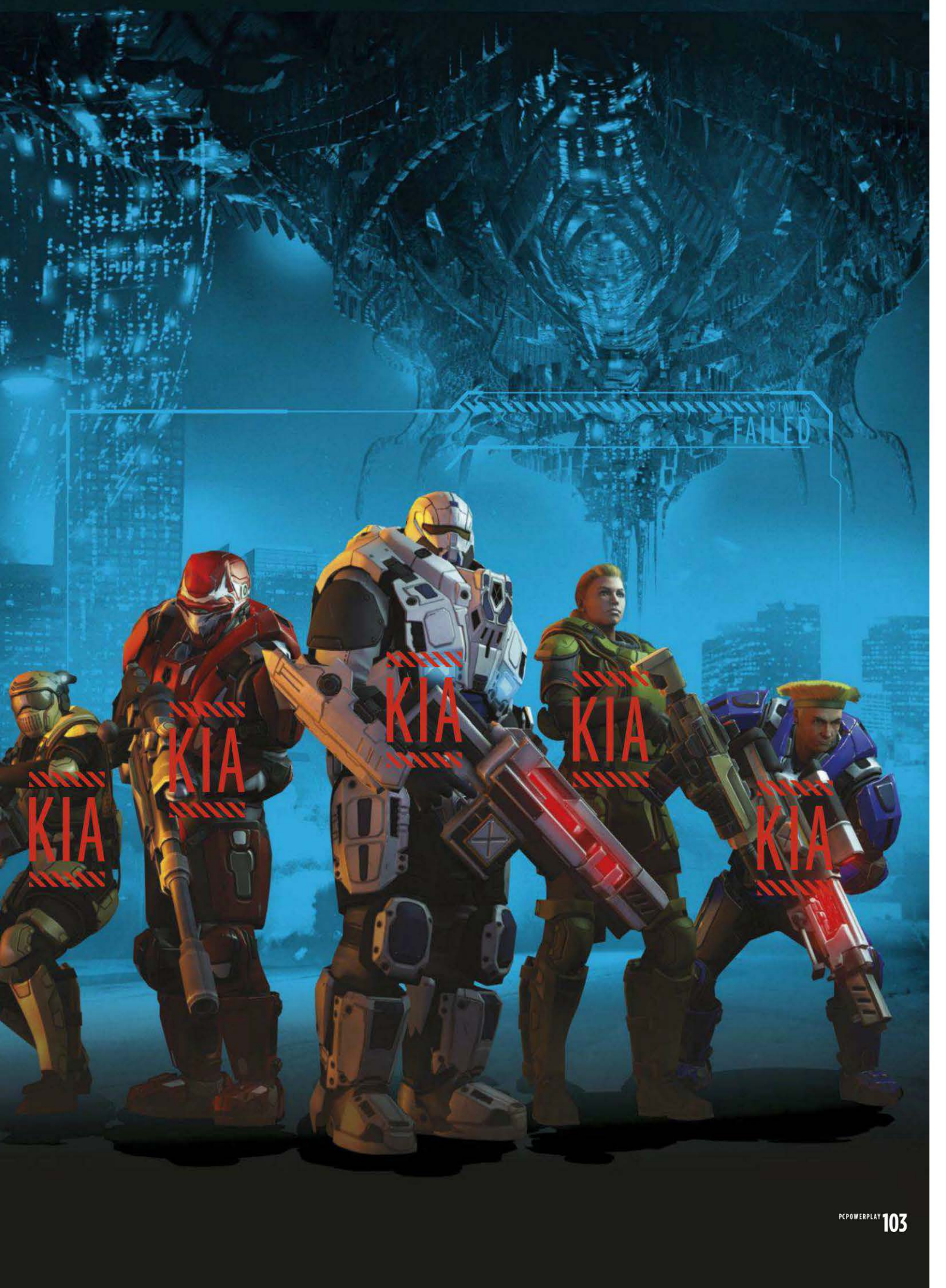
THE RESULT

The result is that, based on our data, there was no evidence (at the 95% confidence level) to suggest that the random generator is unfair. If you want to see the data and the working, it's all available in this spreadsheet: (<http://bit.ly/17QumpR>)

THE CAVEATS

One caveat is that our significance testing is very underpowered. We don't have enough shots for specific percentages to be likely to spot any deviations that aren't large. More data would solve this problem!

The other caveat is a potential problem with the data, caused our own lack of XCOM ability! In the spreadsheet, Game 1 through Game 5 are "Classic"-difficulty Iron Man games. We'd completed Classic Iron Man quite smoothly once already, and figured we'd be fine. Five failures later, we was left with the problem that we didn't have enough data for high-percentage shots, which tend to occur later in the game when your soldiers are high-rank — but we got all ours killed! So Game 6 was non-Iron Man, so that we could use a little reloading to carry us safely through to the later game. Shameful. ☹️



STATUS
FAILED

KIA

KIA

KIA

KIA

KIA

WHAT CAN CHANGE THE NATURE OF A GAME?

Venturing deep into the twisted narrative of PC gaming's pinnacle RPG, **PLANESCAPE TORMENT**

DEVELOPER BLACK ISLE STUDIOS

PUBLISHER INTERPLAY

RELEASED 1999

gog.com/gamecard/planescape_torment

Some titles transcend the normal relationship between gamer and game, moving past simple definitions of like or favourite and moving on to the more ephemeral category of beloved. Planescape: Torment is one of those games, an RPG that has in many ways become something of a benchmark against which all other RPGs, if not all morally charged games are judged, as well as a perennial contender in pretty much every "best games of all time" list. That adoration has played out rather spectacularly in the successful (and record breaking) funding of Torment: Tides of Numenera, the spiritual and thematic sequel to Planescape: Torment.

Originally Planescape: Torment was to be called Last Rites, an "avant-garde" fantasy exploring the nature of morality and mortality, and a 47 page design document was created to pitch the idea to management at Interplay. There is no official word as to how Last Rites was brought into the AD&D realm of Planescape, but due to the fact that the design document specified a location that was similar in many ways to the Planescape campaign setting and that Black Isle were working on Baldur's gate at the time, it stands to reason that management at Interplay sought both to capitalise on the deal they had already made for the Forgotten Realms D&D license as well as leverage a potentially risky RPG on the success and acceptance of the D&D name.

The move to the Planescape campaign system and the D&D rules set is simultaneously one of the biggest strengths of the game as well as its major downfall. The setting itself is magnificent and all but plays out as a satire of role playing games as a whole. The main city of Sigil is literally a gateway to adventure, not only in the fact that it's a wonderfully alien place that both rewards and inspires exploration, but in the fact that nearly anything that can be considered a portal - a doorway, arch, bower or what have

you - can actually be a portal that will transport you to another fantastical place so long as you have the right key. As well as transporting the player to other places, Sigil is also something of a character in its own right - a living city that grows and changes around the player, an idea that reaches its apotheosis in a quest that neatly balances whimsy, fantasy and absurdity in which the player acts as midwife to a pregnant street.

The rules that come attendant with the D&D license function less well than the setting to the point that there is a divide between the narrative, intention and underlying mechanics of the game.

eschews some of the more common D&D tropes. Armour is non-existent for the majority of characters, as are swords. Spells are as spectacular as they are powerful (with some of the more powerful spells having 90 second animations) and solutions to problems are more often than not found in your inventory than in combat. Of all the major unavoidable confrontations in the game the majority can be resolved through conversation rather than armed confrontation, and doing so rewards the player with more experience than straight up combat. This is where the real divide comes on. On the one hand you have a game concerned with philosophical and



Scarab coffins.
Nothing suspect here.

Although it is an RPG set in a D&D campaign setting, Planescape: Torment has far more in common with adventure games than it does with its D&D contemporaries. There's no grand plot about a chosen one trying to save the world/realm/kingdom/princess from evil - the game is based around the far more personal theme of an amnesiac trying to discover his identity. The Nameless One is a truly fascinating character - part blank slate amnesiac who functions as a player avatar and part rich and detailed tortured protagonist. The lack of any base personality makes him an ideal blank avatar for players but as revelations about his past come to light these ideas both inform and influence how The Nameless One is played.

Along with the more personal focus of the story, Planescape: Torment also

moral quandaries that is happy to play them out at their own pace but on the other you have an underlying set of rules that are based almost entirely around rigid systems and combat. The two can't and don't exist particularly comfortably together.

Ultimately that may be the very thing that makes Planescape: Torment such a beloved game. There are swathes of rather grindy D&D combat but they only serve to highlight the amazing moments - for every dull combat against a group of mobs there is a sympathetic zombie, pregnant street, heart-rending revelation as to the true nature of The Nameless One or charming conversation with one of your companions. Or it could just be that the great Jennifer Hale voiced Falls-From-Grace, a chaste succubus Madam who runs a sex free intellectual brothel. **DANIEL WILKS**

NEXT MONTH



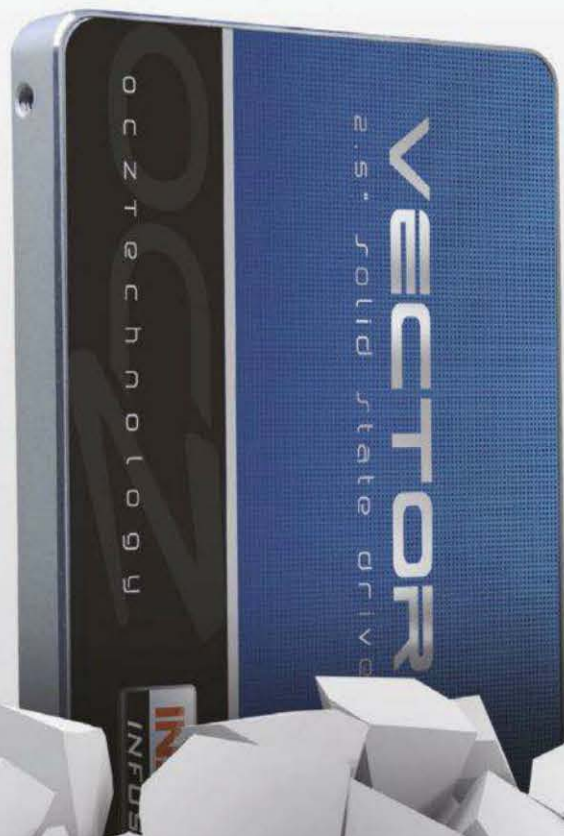
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